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"Almost"



"Once more"



"Take 14"



"More energy"



"Make me jealous"



"Take 21"



"You're so close"



"Let's rethink this"



"Blow me away, Babe"



"Yes! Yes!...No!"



"Hotter"



"Take 33"



"From the top"



"Emotion, please"



"Good! No wait"



"Do that again"



"Oh, you had it"



"Take 41"



"That's it! That's it!"



"Not quite"



"Just one more"

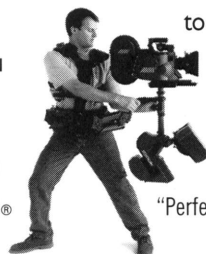
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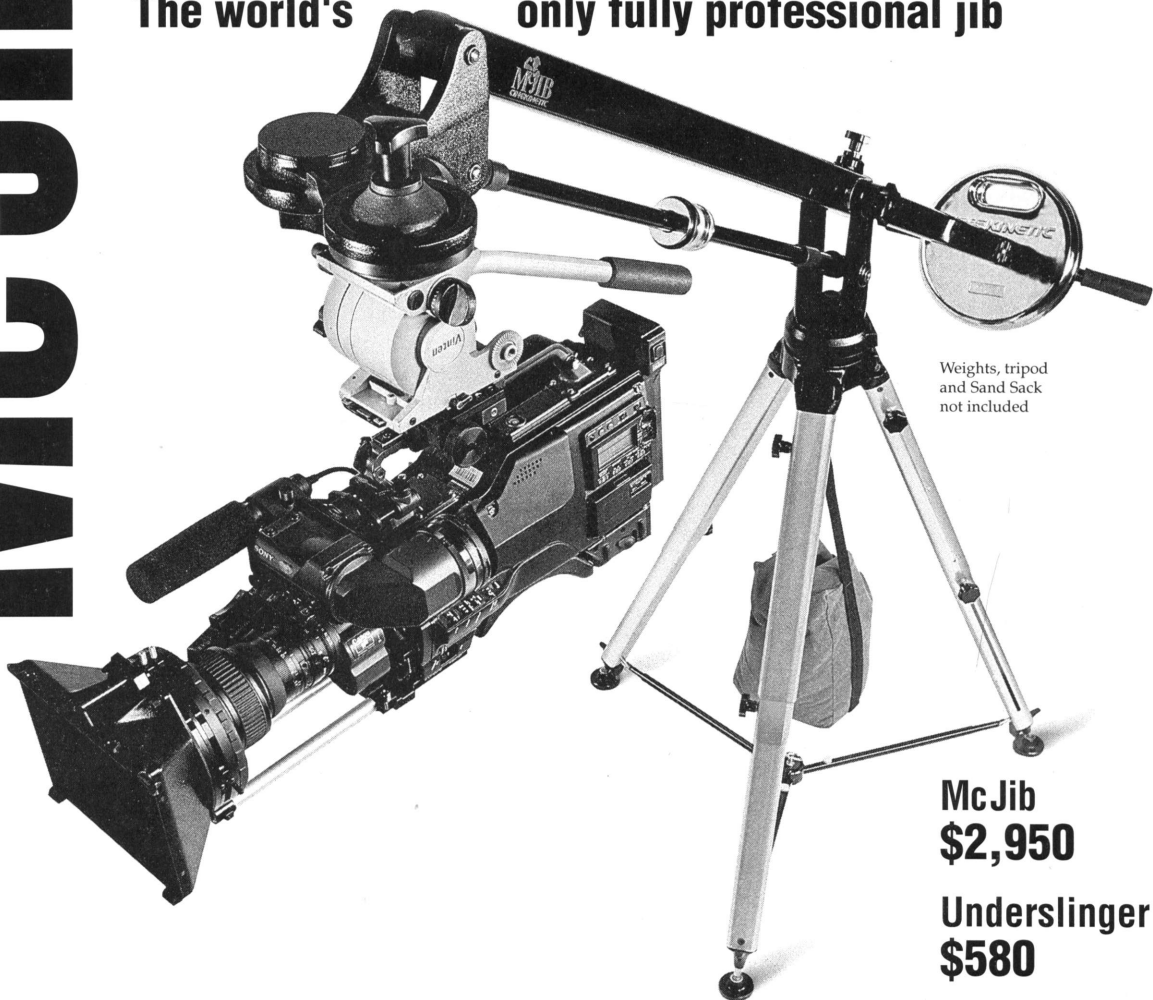


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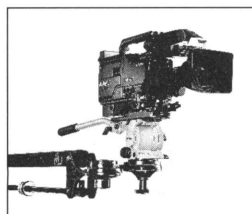
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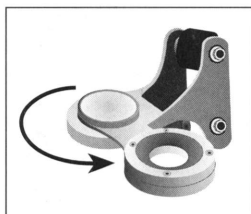
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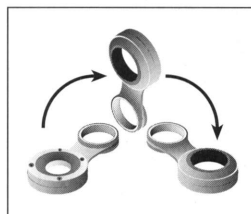
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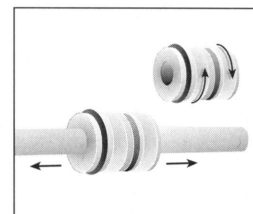
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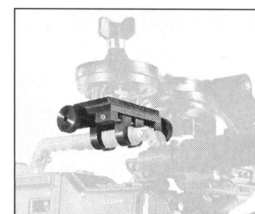
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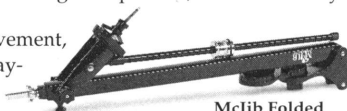


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On Our Cover: Against a kaleidoscopic backdrop of colored Las Vegas lights, eagle-eyed gambling kingpin Sam "Ace" Rothstein (Robert De Niro) checks for loaded dice in *Casino*, directed by Martin Scorsese and photographed by Robert Richardson, ASC (photo by Phillip Caruso, courtesy of Universal Pictures).

Contributing Authors:

Michael X. Ferraro, Bob Fisher, Alex McGregor, Paula Parisi, Chris Probst



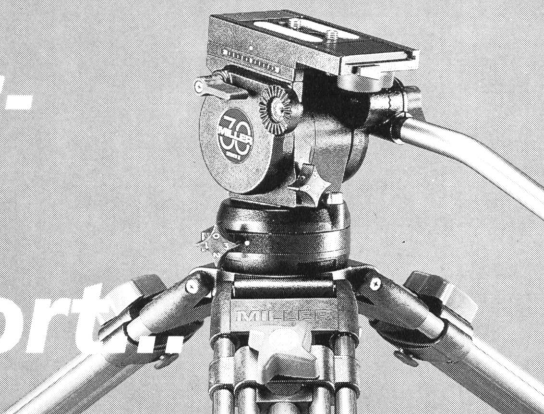
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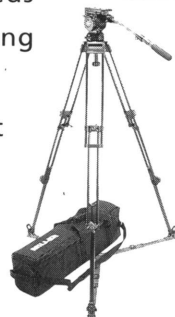
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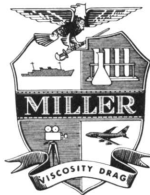
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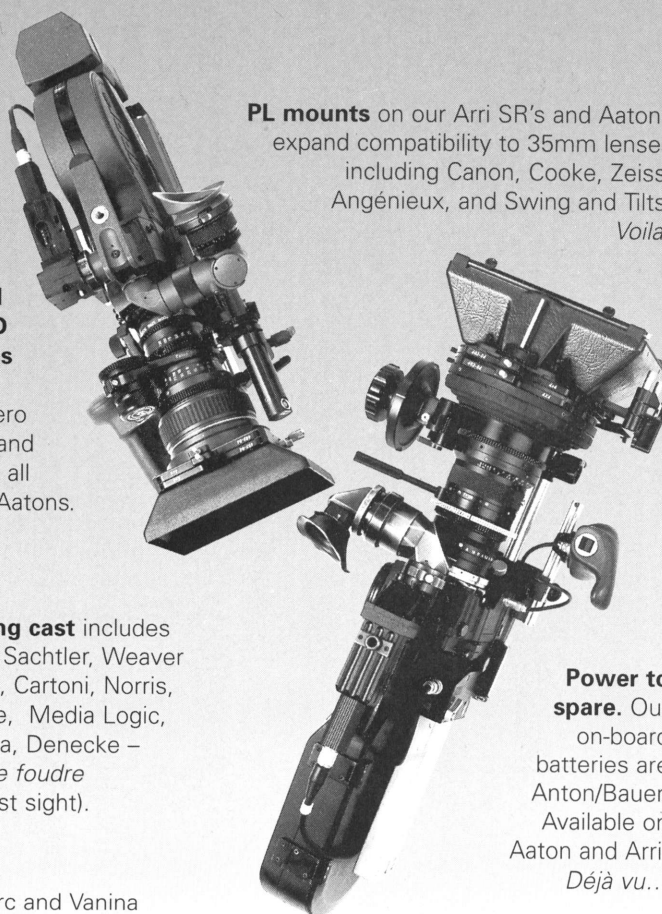
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DEALER INQUIRIES WELCOME

Director Of Photography Bojan Bazelli used Clairmont anamorphic lenses/cameras to shoot "Bodysnatchers"

Up to eight cameras working at once.
Arriscope anamorphics, plus
Angenieux, Cooke and Nikon sphericals
anamorphosed by Clairmont.

“Warner Brothers wanted a wide-screen format for *Bodysnatchers*,” says Bojan Bazelli. “So we shot some tests and projected them at Technicolor.”

New lenses

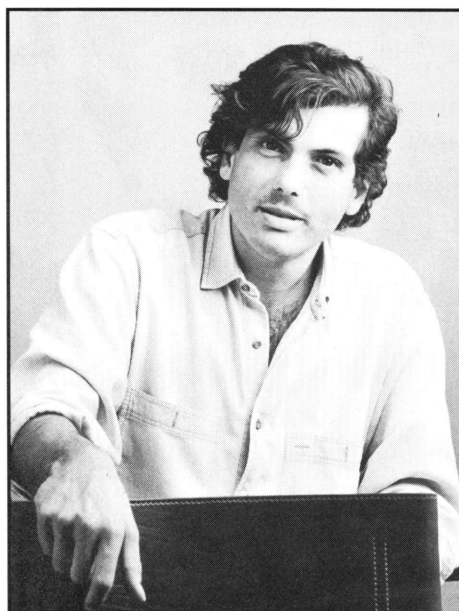
“I’ve been renting equipment from Clairmont since 1988. So I decided to look at the new Arriscopes and the other new anamorphic lenses at Clairmont. Those test results were astonishing.”

No falloff

“I associate anamorphic with some resolution falloff in the corners. But the Arriscopes were razor sharp, edge to edge. As always, you could see some difference as you stopped down. But even wide open, they were beautiful.”

No distortion

“And there was absolutely no curvilinear distortion with the Arriscopes. Straight lines were straight lines. On



Bojan Bazelli has shot seventeen theatrical features; the latest is *Sugar Hill*. He won the cinematography award at Montreal for *Kalifornia* and a cinematography Clio for one of his Pepsi commercials. Others: *Coke*, *Levis*, *Toyota*.

the Angenieux and Cooke zooms, residual distortion looked as low as before they were modified. Those are excellent spherical

zooms. As anamorphic zooms, they looked equally good – as good as any anamorphic zooms I’ve seen. Maybe better.”

Wide choice

“The lenses we took with us: the 40, 50, 75, 100 and 135mm Arriscopes and the 400, 600 and 800mm Nikon anamorphic telephotos; plus the converted Angenieux HR 50–500mm zoom and the converted Cooke 36–200mm zoom. We rented two sets of all the primes and telephotos, one each of the zooms. On some scenes, we had eight cameras working.”

Ten week shoot

“Our First Unit used a 535, with a BL4S in the truck as a spare. The Aerial and 2nd Units used Type 3s. Clairmont supplied us with video monitors modified to display the 2.35:1 ratio. We had a Power Pod and Titan crane that we used almost every day; and a Wescam mount helicopter. The shoot lasted ten weeks.”



The lens at the far left started life as a spherical 300mm Nikon. We modified it; it's now a 600mm T4 anamorphic. The lens at the back used to be a spherical Cooke 18-100mm zoom. Following our modification, it's an anamorphic 36-200mm T4.5. The Arriscope 40 and 50mm lenses are both T2.3.

Abandoned base

"The whole thing was shot at an abandoned Army base in Selma, Alabama. There was a theater at the base. To view the Dailies, we rented a Xenon projector with ISCO anamorphic lenses from a place in Atlanta, together with a thirty-foot screen."

1700 miles away

"Atlanta was about 200 miles from the army base. Clairmont was about 1700 miles away; but that didn't seem any further to me, because of the fast backup I've always had from the Clairmonts. I also felt confident that their equipment would perform, which it did."

Familiarization

"We had to learn the lenses. Every lens, anamorphic and spherical, changes image size when you rack the

focus. With some Arriscope focal lengths, that breathing was definitely noticeable in our tests. On the shoot itself, we blocked the action to hide focus changes; and we followed focus in small increments, with camera moves. We were happy to work with those lenses just to get those beautiful images on that thirty-foot screen."

Color matched

"Color-matching was perfect with all five Arriscopes, off the shelf. We didn't need to pick and choose. I used the zooms and the long Nikons only

for exteriors, where the color temperature varied anyway."

Edge to edge

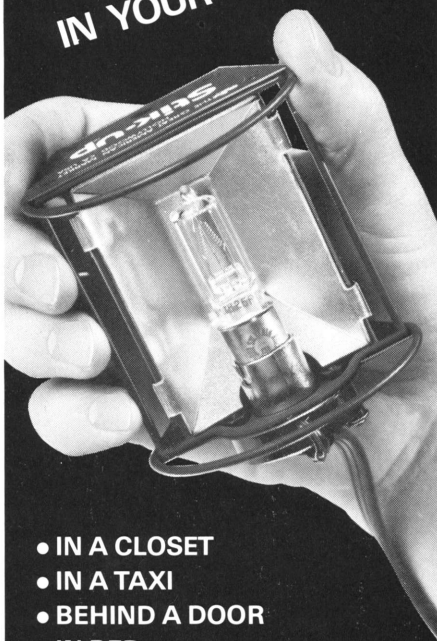
"Abel Ferrara, the Director, wanted very long-duration master shots, with several actors moving about to left and right within the frame. The wide-screen format lent itself to that style. So did the zero edge distortion in the Arriscopes."

"We had a lot of fun making this picture," says Mr. Bazelli, "Even working with lenses so heavy some of them had carrying handles!"

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Letters

A Tireless Pro-65mm Campaigner

I have been looking into why everyone in the field — from the writers, directors, studios, and distributors, down to the theater chains — has let the 65mm format slide. The main argument is that writers aren't producing scripts good enough to shoot on 65mm. I understand that using 65mm is more expensive than 35mm anamorphic, but even the very high-budget features, which pay actors outrageous wages and could easily afford and benefit from 65mm, are not using it. As a result, theaters don't bother to repair or upgrade their 70mm equipment because not enough new productions are being released to offset the expense.

They say 65mm needs more light over the other formats, but a test was done using all film formats and it needed no more light than 35mm anamorphic. Also, they say that the equipment is bulky — well, Panavision's new 65mm cameras are compact and lightweight; that the equipment is expensive — the System 65 Panaflex is not much more expensive than the Panaflex Platinum system; and that the film stock costs too much — 65mm is twice the cost of 35mm in the same length, but film is relatively cheap for a high-budget production where quality is the most important factor. Another misconception is that 35mm anamorphic has the same picture quality as 65mm. Not true. Maybe compared to 65mm films of 30 years ago, but not with today's Eastman EXR stocks.

With the rapid approach of HD televisions, theater chains will need a higher quality picture to compete with home video. After all, who wants to go to a movie that doesn't really look that much better than your home unit, except for big-screen factor?

I ask that studios (or directors for that matter) please produce at least one 65mm film once in a while. After all, with originality becoming scarce in many of today's films, they need an extra edge to bring back audiences. It can make the

difference between a good film and an even better one.

I know I'm not alone in the outcry to save this format and produce more features in 65mm with DTS 6 Track Sound. I hope Spielberg produces such a film in the future, given the fact that he produces beautiful images and that most of his films are profitable. Maybe that will convince theater owners to upgrade their equipment. As a student hoping to become a director of photography, I wish to produce at least one film in 65mm, even if it is a short feature. In my eyes nothing compares to 65mm, not even 35mm Scope.

I wish more people would speak out and write letters to all concerned if they wish this format to survive.

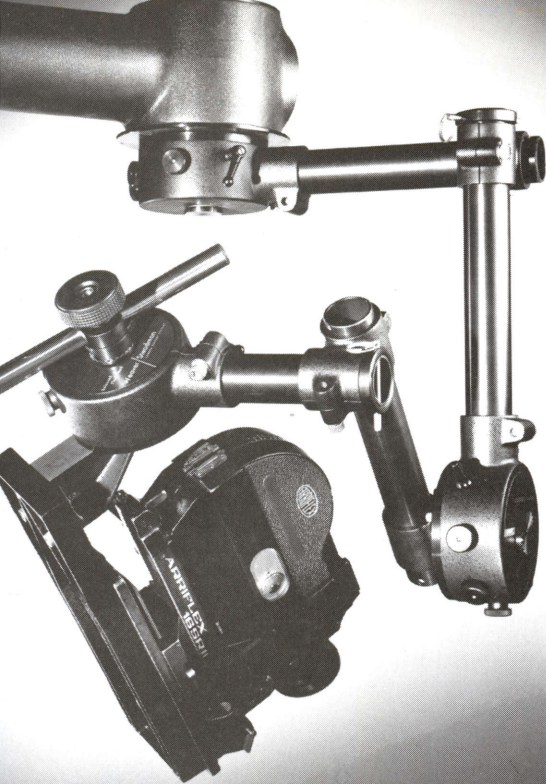
— Scott Pickering,
Vancouver, Canada

Anamorphic Butchering Re-analyzed

Re: Jeffrey Lathery's letter in the September issue: Mr. Lathery was apparently unaware that *Crimson Tide* was an anamorphic film (director Tony Scott has had only two films shot non-anamorphically; they were released in the Super 35 format) and his multiplex is apparently a rare one that cuts off the top and bottom of anamorphic films rather than the sides.

Additionally, his claim that the aspect ratio is wrong for "claustrophobic interiors" has been disproved many times over the last 41 years with such submarine films as *Hell and High Water* (the first such and Fox's seventh CinemaScope picture), *20,000 Leagues Under the Sea*, *The Enemy Below*, *Torpedo Run*, *Voyage to the Bottom of the Sea*, and *Ice Station Zebra*, which was shot in 65mm.

I do agree with his argument that anamorphic films should be properly designated in advertising so that the knowledgeable can choose to see them in theaters which show them properly. This was, in fact, the practice until about ten years ago. Since that time, almost all



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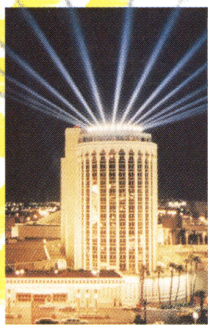
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films, even those shot in 16mm and Super 8 for video release only, have been distributed in stereo [once one of the promotional points of a widescreen release], so only the use of one of the digital audio formats introduced a couple of years ago makes stereo sound special or unique.

Anamorphic films, however, can only be properly enjoyed in the theater since letterboxed video is really the antithesis of the whole idea (although there is the option of Super 8 anamorphic, which looks very good). And unlike today's star- and critic-obsessed executives, I am certain that letting audiences know that selected films are in this ratio and should really be seen on a proper BIG WIDE SCREEN might actually increase their theatrical income.

— Rick Mitchell
Los Angeles, CA

Appeal for Thesis Help

I have been an *AC* subscriber since entering the cinematography department at Brussels INSAS film school in 1992. In these three years I have followed with much interest the discussion about cinematographers' authorship. Encouraged by the Belgian cinematographer Michel Houssiau, SBC, I decided to write my thesis (to be completed at the end of November) on the growing impact of postproduction, CGI, and the digital (r)evolution, and the cinematographer's ability to keep control over his image, from negative exposure to the final release print.

I would be very grateful for any information or comments on this subject from directors of photography, special effects supervisors, production designers, directors, producers, or any other *AC* reader. My fax number is 011.32.2.511.02.79.

— Tim Mendler
Brussels

Please send any comments or suggestions to Letters to the Editor, *American Cinematographer*, P.O. Box 2230, Hollywood, CA 90078. Or reach us online at ASCMAG@aol.com. We also welcome information on new products or noteworthy projects, developments or collaborations; please direct such material to the attention of the Assistant Editor.

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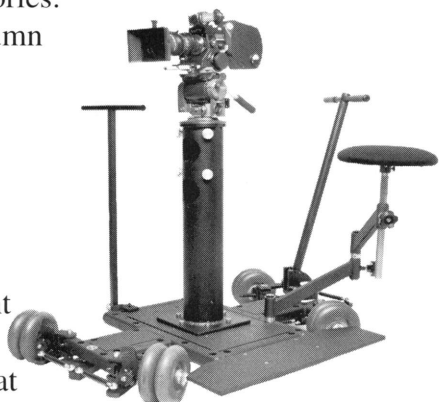
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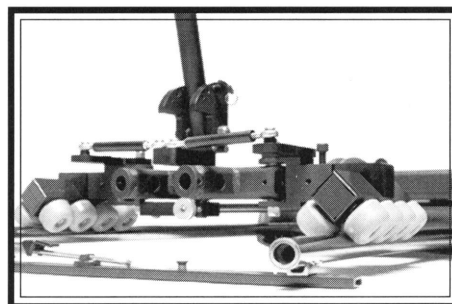
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Production Slate

by Debra Kaufman and Marji Rhea

40th Anniversary for London School of Film Techniques

1996 will mark the fortieth anniversary of the opening of the London School of Film Techniques, the forerunner of the London Film School and the present London International Film School. The School intends to organize several events to mark the anniversary and hopes that all alumni will send in contact information and encourage other ex-students to do the same. The mail and e-mail addresses, together with the URL for the Internet Web Pages, are given in the School's advertisement on page 75. Alumni can also register for inclusion in the LIFS-Net Database of ex-students, which will enable them to contact other graduates all over the world, using the Internet. Although they can register by ordinary mail, fax or e-mail, the best way is via the LIFS40 Web page (<http://www.tecc.co.uk/lifs/lifs40.html>), where there is a form for supplying contact data and details of useful information about facilities and resources they could supply to fellow graduates.

High-Speed Network

On September 7, Prisa Networks, Inc. introduced NetFX, a new product line of digital computer networks capable of transmitting data at one gigabit (one billion bits) per second. The first Prisa products are the NetFX family of Fibre Channel adapter cards that accelerate communication between Silicon Graphics' Indigo2 and the new Indigo2Impact workstations, at rates up to 1062.5 MB/sec. This rate exceeds the 270 MB/sec. rate defined by the CCIR-601 digital interface standard as necessary to deliver uncompressed video at real-time rates. The San Diego-based Prisa Networks is part of Silicon Graphics' developer's program and will receive marketing support from SGI's Silicon Studio division.

"Silicon Studio is committed to providing the tools to deliver the digital

studio of the 21st Century," says Silicon Studio president Mike Ramsay. "Prisa's NetFX fills a huge connectivity gap for customers who require high-speed transfers of full-resolution, uncompressed data."

According to Prisa Networks president Marc. D. Friedmann, NetFX is a local-area network application which will enable uncompressed files to be sent in real time within 10 kilometers. The new networking product is aimed at motion picture and television studio production and video postproduction and is intended to enable artists and editors to access simultaneously the same video data from different workstations and from different locations.

As a LAN (local area network), NetFX would replace ethernet, SCSI or FDDI connections, as opposed to distance networking solutions such as SGI/Sprint's Drums or Pacific Bell's AVS. But NetFX will also offer a wide-area network application.

"In the local-area network application of NetFX, the imagery is uncompressed," explains Friedmann. "When you're dealing with image creation or manipulation, you can't live with the artifacts created by MPEG. But once the images are complete and the processing is done and you're distributing, the need becomes how many channels you can get per connection. That's where NetFX will really shine, because you'll be able to get five times as many channels per port."

Friedmann reports that he's in discussion with cable providers and cablecasters interested in commercial insertion utilizing NetFX technology. The NetFX networks are based on Fibre Channel technology, a new computer industry standard for network products.

"It's a new generation of industry standards that have been architected and conceived from the beginning to work at these data rates," points out Friedmann. "And our proprietary 'transporter' protocol enables large

blocks of data to be transferred across the network. That's very different than the normal network data, which tends to be e-mail packets of a few bytes or kilobytes."

NetFX is currently being beta-tested at several studio production facilities, video postproduction houses, and equipment suppliers across the country. Friedmann declined to name the beta-testers, noting that they're under a non-disclosure agreement. Though currently NetFX adapters interface only to SGI's 64-bit GIO bus used by the Indigo2 and Impact workstations, plans at Prisa include creating applications for other platforms.

"Right now, today's products are specifically designed to optimally work in the Silicon Graphics workstations," explains Friedmann. "Future Prisa products will be designed to work on other, broader-based computer systems. But we haven't announced plans yet."

Both copper and fiber-optic media can be used with NetFX systems. The desktop workstation version will be available in the fourth quarter of 1995; pricing will be in the \$5,000 range per adapter. A server version of the NetFX adapter for SGI's high-capacity workstations and servers is under development and will be available in the first quarter of 1996.

Prisa Networks, (619) 677-0030.

Editing Facility

Editor Yvette Piñeyro has left Gloria's Place and launched her own company, Wildchild Editorial, in Manhattan. The facility features two 8000 Avids, an Avid Audvision System, and a Baby Flint. Piñeyro's credits include a recent PSA in homage to Hiroshima, directed by filmmakers Joe Berlinger and Bruce Sinofsky and musician David Byrne; a package for Oxford Health Insurance; a campaign for Dryjoy Golf Shoes; a Bell South Telecommunication campaign; promos for HBO's *Talking Sex* series;

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and the music video for "Chant." Upcoming projects include a feature film for director Leon Ichaso (*Sugar Hill*, *Crossover Dreams*).

Wildchild Editorial, (212) 741-7989.

Digital and Computer Services Group

The Tape House has introduced its digital and computer services group, offering clients an effective and efficient interface across formats and media. The digital and computer services group transfers computer graphics files from Macintosh, PC, SGI and Sun workstations to any video format, a necessity for animations created by clients off-site. The group also lays off images and moving footage captured from film, photographs, slides and transparencies to videotape or computer files for further processing. In addition, videotape material can be authored onto CD-ROM for multimedia end users.

The Tape House has also developed a frame-by-frame standards conversion technique for NTSC, PAL and SECAM videotape which eliminates the motion artifacts and jitter associated with real-time standards conversion.

The digital and computer services group utilizes Digital Vision's 4:4:4 digital noise reducer for color correction and digital noise reduction processing.

In addition to these services, the new group will offer proprietary software for extremely accurate and detailed quality control (QC) reports for feature-film clients.

The Tape House, <http://www.tapehouse.com>.

Cinematography Award

The International Cindy Competition has announced its Wolfgang Bayer Award for Achievement in Cinematography. In March of next year the award will be presented to a cinematographer whose work was entered in this year's 37th annual event. The new award is named for one of the world's foremost wildlife cinematographers, who has been producing, directing and filming wildlife conservation films for over 25 years. Bayer's credits include more than a dozen programs in the WNET 13/PBS series *Nature*, three one-hour programs in the PBS/WGBH Boston science series

Nova, and 18 half-hour installments in the Time-Life series *Wild, Wild World of Animals*. He was Emmy-nominated for the National Geographic special *Last Stand in Eden* and received an Emmy for *Alaska, Story of a Dream*, produced by Turner Broadcasting.

Trained as an electrical engineer in Austria, Bayer got his start there developing underwater filming techniques. After coming to the United States, he produced a half-hour documentary on Yellowstone which was then distributed by L.A.-based Bill Burrud Productions. He joined Burrud, eventually becoming executive vice president, then later struck out on his own, forming Wolfgang Bayer Productions.

International Cindy Competition, (619) 461-1600.

VFX Studio

Jon Warren, Douglas Miller and Evan Jacobs, former staff members of Boss Films Studios whose credits include *Drop Zone*, *True Lies* and *Outbreak*, have established Vision Crew Unlimited, a full-service visual effects studio that provides a wide range of special effects services, including miniatures, puppeteering, motion control and make-up effects. Ultimately, the company expects to add computer graphics, digital compositing and film opticals to its in-house services.

Vision Crew is currently working on two projects, the feature film *Sometimes They Come Back* and a Coca-Cola commercial directed by Spike Jonze.

Vision Crew Unlimited, (310) 558-0450.

Production House Moves

PS-A (Production Services, Atlanta) has relocated its equipment and service facilities from Chicago to Nashville. PS-A Nashville is a complete motion picture production equipment rental, sales and service facility featuring specialized cameras, cranes, remote heads and arms, and lighting and grip equipment.

PS-A Atlanta, (404) 622-1311, FAX (404) 622-1691.

Video and Film Rental Facility

Albuquerque-based video and film rental company Duke City Studio has

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“We did split screen tests between a traditional transfer system and the BTS telecine, and found the BTS to be sharper and with more depth.

“If you start with a diffused look, it looks degraded by the

time the signal gets over the air to your home receiver. Using a BTS telecine at the start is the only acceptable way to preserve the image.

“If we had transferred it in the traditional way, it would have been grainy and lacking sharpness. This would have been evident to everyone.

“It’s that level of trust that also put ‘Chicago Hope’ on a BTS telecine.

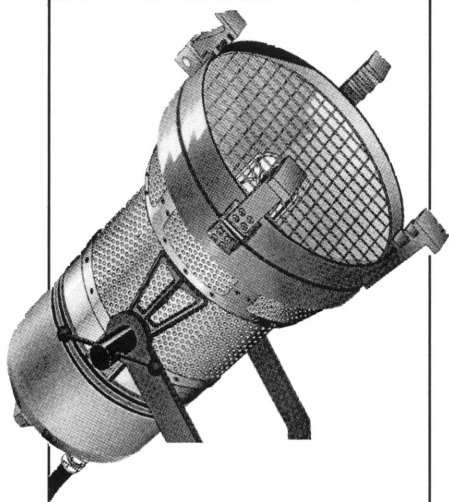
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Duke City West, (818) 841-5151.

Short Film Showcase Series Goes National

1st Frames, the award-winning weekly showcase of international short films, has begun airing nationally on PBS stations. The half-hour series was developed by Jack Ofield, executive director of the Production Center for Documentary & Drama at San Diego State University, and test marketed between 1992 and 1994 on KPBS in San Diego.

1st Frames features up to four short works per program, including documentary, narrative and animation. Short works from the U.S., France, Belgium, The Netherlands, Spain, Canada, New Zealand and Australia will be featured in the 1995-1996 season.

In 1994 the series won the CPB Silver Award/Performance and three Southwestern Emmys. It has been praised for its unusual content, writing, original theme music, and decor that forms a stylish setting for films and videos by new and established artists.

Before submitting films or videotapes to the series, filmmakers should obtain an application form from Jack Ofield, The Production Center, SDSU, Rm. PSFA 325, San Diego, CA 92182-4561. Works running 20 minutes or less are eligible — and shorter is better.

New Post Facility

After 20 years in the music industry, Redman Productions has opened a full-service postproduction facility in downtown Orlando. BritHaus offers component digital online editing, Avid offline editing, computer graphics/special effects, digital audio production, music production, duplication services, and an interactive multimedia department.

BritHaus, (407) 648-8666.

NY Lotto Spot

Post Perfect lent its expertise in broadcast graphics to the latest spot in the New York State Lottery's high-profile campaign, creating a mock show open for a Lotto winner "who loved talk

shows so much, she went out and bought her own."

"Talk Show" opens with a 3-D rotating oval modeled with the fictional "Late Evening Tonight" show logo composited against live-action stock footage of New York City after dark. To the accompaniment of a brassy music score, neon-edged 3-D stars fly by, showcasing clips of the show's guests, all of whom turn out to be the children of the Lotto winner and hostess, who is highlighted by stars spilling from the Statue of Liberty's torch and welcomed onstage by a cheering studio audience and the "Hey, you never know" slogan.

"Eighteen of the spot's 30 seconds were CGI, so it was very 3-D intensive," notes Post Perfect executive producer Angela Bowen. Bruce Gionet created the opening Wavefront logo animation, and Scott Liedtka created the star animations, modeling transparent tubes to encase filaments of neon which flashed on and off in a sequence.

For the transition to the stage set, animator David Blizzard developed a waterfall of stars emanating from the torch of the Statue of Liberty, moving the path of the particle animation to follow the torch in the moving aerial shot.

Using Prism's particle animation system, Blizzard simulated the physical forces of gravity, wind and turbulence to move the stars and varied the velocity of the objects to affect the weight of each star, giving each a different path. The stars were then rendered with motion blur in Renderman and composited with CGI smoke and dust layers over the live-action footage in Prism's Ice. The resulting cascade of neon-colored stars burst forth from the torch, floating and falling in a random pattern. A "hero" star, containing footage from the set, moved forward, creating the full-frame wipe.

Post Perfect, (212) 972-3400.

Digital Film Recording

EFilm performed digital film input scanning and output film recording on several shots in *Showgirls* for Hammerhead Productions and *Nick of Time* for CIS Hollywood.

The negatives were scanned at 4096 pixels and "down-rezzed" to 2048 pixel resolution on the EFilm



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CinemaScan system and formatted to each customer's specifications. The images were color-corrected using EFilm's proprietary techniques to produce colors when viewed on ordinary NTSC to match those seen on film when recorded by the EFilm process.

The spots for *Showgirls* were retouched and composited by Hammerhead to accomplish everything from the removal of rigs from flying sequences to the more subtle readjustment of the mood of certain shots. "The EFilm scanning and recording to and from 2K is so transparent, we didn't have to worry about jumps in quality or color in the effects shots," says Jamie Dixon, visual effects supervisor at Hammerhead, "so the job evolved into much less obvious but more important adjustments to match both emotional and physical continuity of surrounding shots." Hammerhead both added and subtracted the amount of blood in some of the violent scenes to bring the shots into careful alignment with the reactions of actors in subsequent shots. They also added smoke to shots and water to a fountain shot to build better continuity to surrounding cuts.

The shots for *Nick of Time* all involved the digital removal of an actor's leg and manipulation of the artificial limb. CIS retouched the images to remove the rig that held the actor's real leg out of the way as well as the real limb, and to remove cables used to move the artificial limb. Shots were also retouched to drape the pants leg properly and to replace pavement under the area where the real leg was removed.

EFilm output the digital imagery for both features onto 35mm films. The images were increased in resolution using the company's videotape-to-film process, and output to flare-shielded film recorders using fine-grain 5245 stock.

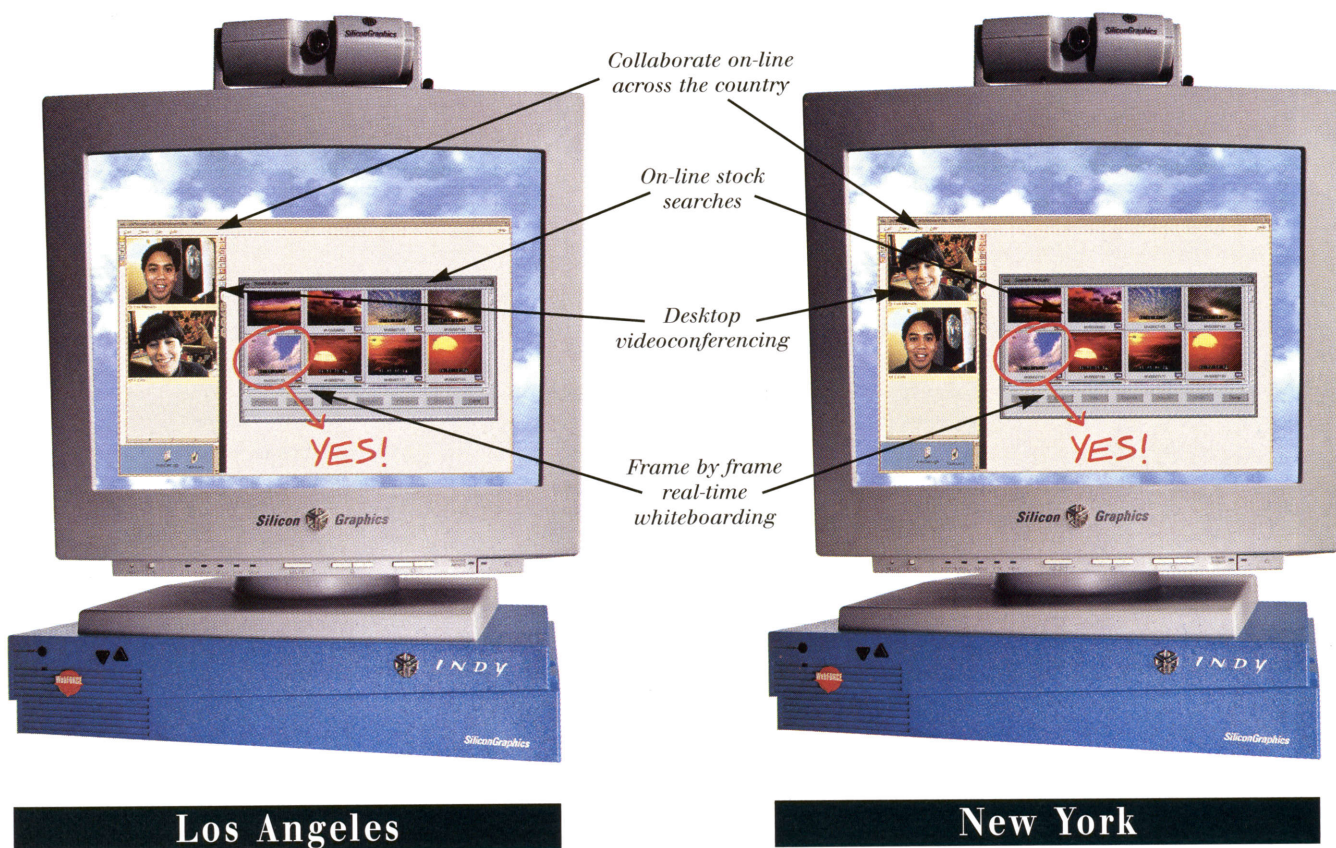
EFilm, (213) 463-7041.

CG Development Project

At Siggraph '95 Alias/Wavefront announced its Project Maya, a development initiative expected to produce its first product within one year. The goal of the project is to improve the level of realism in computer graphics, the rate at which high-quality computer graphics are produced, and the creative experience of the artist using digital tools. Over two years of development have already

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been invested in the project, and half of the newly combined research and development team is focused on it.

Alias/Wavefront, (416) 362-9181, fmiraglia@aw.sgi.com.

Upcoming Events

November: New York Exposition of Short Film and Video, New School for Social Research, New York City, (212) 505-7742.

November 1-5, 10: 11th Annual Film Arts Festival, San Francisco, (415) 552-FILM.

November 2-4: Viscomm Communications Expo, New York City, (203) 852-0500.

November 3-5: 20th Annual Banff Festival of Mountain Films, Banff, Alberta, Canada, (403) 762-6100, FAX (403) 762-6444.

November 7-12: Third Annual WorldFest-Charleston International Film Festival, Charleston, SC, (803) 723-7600, FAX (713) 965-9960.

November 7-12: 26th Annual Sinking Creek Film & Video Festival, Nashville, (615) 322-4234 or 322-2471.

November 8-12: Cinequest Sixth Annual San Jose Film Festival, San Jose, CA, (408) 995-6305, FAX (408) 277-3862.

November 15-19: 7th Annual Sarasota French Film Festival, (813) 351-9010, FAX (813) 351-5796.

November 17-20: Lighting Dimensions International Workshops in Lighting Design and Production Techniques, Miami Beach, (212) 229-2084.

November 27-December 2: 37th Bilbao International Festival of Documentary and Short Films, Bilbao, Spain, FAX (34) 4 424 56 24.

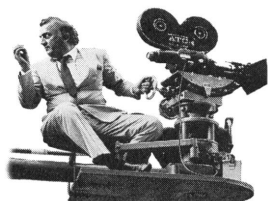
November 28-30: London Effects & Animation Festival and Computer Graphics Expo '95, (44) 181 995 3632, FAX (44) 181 995 3633.

November 30-December 3: Santa Barbara Lesbian and Gay Film Festival, Santa Barbara, CA, FAX (805) 963-9086.

December 2: ASC Holiday Book Bazaar. Meet ASC members at the ASC Clubhouse, Hollywood, (213) 969-4333.

December 2-3: AFI Master Class in Directing, taught by Martha Coolidge, Los Angeles, (213) 856-7690.

December 2-9: Camerimage Festival of the Art of Cinematography, Toruń, Poland, (48) (56) 275 95. ✱



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Cinematographer Billy Dickson on the set of the hit series, *Deadly Games*.

Photo: Michael Bulbenko. Film: Fuji Professional Neopan 400

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for the unique look of *Deadly Games*?

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"Many of *Deadly Games*' outrageous effects are produced in the camera. So prior to principle photography we shot blue screen tests with every available film stock. The result? Fuji F-250D won hands-down—with the best blue saturation and less noise.

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PLAYED OUT IN "REAL TIME" FOR ITS 90 minutes, recalling the tension-building tactics of *High Noon*, the aptly-titled *Nick of Time* lays bare the random nature of terrorist crime and examines how one man responds with a family member's life on the line.

When anxious accountant Gene Watts (Johnny Depp) gets off the train in Los Angeles's Union Station with his six-year old daughter Lynn, he does anticipate a heart-pounding race with the clock — to get to his job interview on time. Instead, the evil Mr. Smith and Ms. Jones (Christopher Walken and Roma Maffia) dupe Watson into compromising his daughter's safety and then use her life as the ultimate bargaining chip, telling this ordinary man that he has until one o'clock to assassinate the governor of California (Marsha Mason) or the little girl will die. From that point on, we accom-

panies in his cinematographer is "the quality of the images, obviously; his ability to adapt with efficiency and speed; and his understanding that he is not the only person on the movie."

Both men are fast workers and expect nothing less from their crew, although Wagner admits that he wasn't always so speedy. "I used to work really slowly, and get

That's been my pursuit for the last ten years: finding simplistic ways of approaching and getting strong images." That strategy meshes perfectly with Badham's sensibilities; Wagner says the director has a "very keen visual sense and is the kind of person who clearly knows what he wants, and does not want. A clear vision is a wonderful attribute in guiding others. Pre-vi-

Beat the Clock

With *Nick of Time*, director John Badham and cinematographer Roy Wagner, ASC experiment with a real-time storyline.

by Michael X. Ferraro



Right: Caught in a Hitchcockian web, accountant Gene Watson (Johnny Depp) is forced to assassinate the governor by terrorists who have kidnapped his daughter. Preparing for the film's "stylish documentary," real-time approach, Wagner (far right in blue shirt with director Badham) studied photojournalism and Italian neo-realism.

pany Watson as he tracks his quarry through downtown L.A.'s Westin Bonaventure Hotel.

The new Paramount suspense drama was directed by John Badham and photographed by Roy Wagner, ASC, marking the duo's third straight collaboration (after *Another Stakeout* and *Drop Zone*). The ongoing relationship is no coincidence.

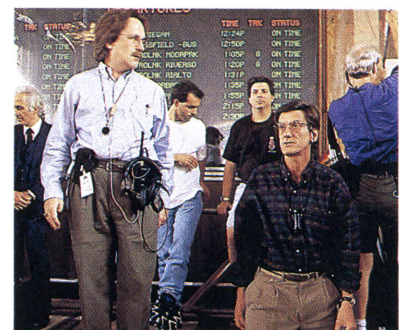
"You work with someone constantly because you like their work," Badham says, "not because you co-signed the loan with them." What the veteran director (*Saturday Night Fever*, *Blue Thunder*, *War Games*, *Stakeout*) specifically appre-

ciates in his cinematographer is "the quality of the images, obviously; his ability to adapt with efficiency and speed; and his understanding that he is not the only person on the movie." Both men are fast workers and expect nothing less from their crew, although Wagner admits that he wasn't always so speedy. "I used to work really slowly, and get

a lot of pressure from the studios," he remembers. They'd say, "Roy, your stuff looks great, but it's costing us a lot." That was about ten years ago. Then I discovered that one of my favorite cameramen, Gregg Toland [ASC], worked very, very fast, and I thought, 'Oh my God, what am I going to do?' Harry Stradling [ASC] and George Barnes [ASC] were also very fast, and they were working in black-and-white, which is much more complex.

sualization, as Ansel Adams defined it, is the basis for the creation of any worthwhile art. John pre-visualizes, allowing him to make strong alternative creative choices quickly.

"He likes to work very, very fast," Wagner continues, "and I do too now. I believe in instinctual art and filmmaking. I'm not saying that it's the only way, but I find with many of the people I deal with that if you let them know at



the beginning that they're going to be working at their full potential every moment of the day and are expected to do their best work, then they're 'on' all the time. I find that most crew people, especially grips and electricians, like to work really fast."

The same holds true for Wagner's operators. "They're on their toes, and when you're like that you have the sense of perform-

Photos by Bruce W. Talamon, courtesy of Paramount Pictures



ing for an audience. But they'd better do their best focusing and best operating on the first take. You may very well have a print on the first take, and that's it, you're done. I call it the Hindenburg philosophy. The camera operator who captured the sudden catastrophe of the Hindenburg dirigible explosion could not ask for another take. He had to be in focus and capture the moment as perfectly as possible. There would never be another opportunity. To some extent we have the same problem in structured filmmaking. That one take may hold an accidental moment that may never occur again: an actor's brilliant quirk of performance, how the elements fall within the frame, a certain awkwardness that is appropriate. Working this way allows me to rely upon my instincts. Placing yourself at risk teaches you a great deal about your philosophy and helps you to make strong adjustments to your method quickly."

Obviously, *Nick of Time* was an educational experience if nothing else. "This is not like any other feature I've ever done," Wagner maintains. "There's a lot more immediacy to it. It has the feel of a 'stylish documentary.' In preparing for the film, I looked at a lot of books on photojournalism and showed John a lot of old photographs from *Life* and *Look* magazines." Other aesthetic inspirations were the neo-classical Vittorio De Sica movies *The Bicycle Thief* and *Umberto D.*, as well as *Medium Cool* (directed and photographed by Haskell Wexler, ASC), *Klute* (Gordon Willis, ASC) and *The Candidate* (Victor Kemper, ASC). Wagner also invokes the groundbreaking work of legendary ASC members Conrad Hall and William A. Fraker.

Nick of Time's surreal bent was enhanced by Badham and Wagner's decision to shoot almost totally handheld and with Steadicam. By their count, there were fewer than ten dolly shots on

the whole show, and on each the operator shot handheld sitting on the dolly. The two decided early on that the dramatic tension and the raw, almost unedited feel of the story would be best served in this manner.

"With the 'real-time' element, Roy and I were trying to figure ways to create an illusion," explains Badham. "Because if it was *real* real time, we'd have started on the morning of the first day, filmed the movie, and everyone could have gone home in 90 minutes. But it wasn't. So every time we cut and stopped the camera, we would be violating a real-time principal." That being the case, the challenge was to find a consistency in the chaos, or what Wagner calls "a systematic disorder" that ruled the film.

One shining example was Badham's decision to shoot his close-ups and wide shots at the same time. As Wagner points out, "Normally, this is a cinema-

Surrounded by forces beyond his control, Watson's plight is summed up in a telling shot. To mirror the character's confusion, Wagner visually composed the film like an M.C. Escher etching "where nothing goes down, nothing goes up and everything seems to go together."



Above: "My philosophy is to evaluate a location and try not to overpower it," says Wagner. He found the cavernous, multi-leveled Bonaventure Hotel to be a hostile one plagued with "light-sucking" values and constantly-shifting daylight coming in from huge windows. To help compensate, four huge frames containing 4K Pars were situated around the atrium (below right).

tographer's nightmare, because you might more generally light a master angle so that the overall look is better served, cleaning up the actor's close-up when you move in. Using this method meant that the actors had to look good with key lights 'rifled' from a minimum of 100 yards away, making the light very difficult to control. In many instances we might photograph a wide master and two opposing cross-angle close-ups photographing in opposite directions. In other words, the angle of view would be 180 degrees of controlled lighting, seeing enormous depth into the hotel lobby behind the actors." But the cinematographer is pleased with the results, and *Nick of Time* logic prevailed.

"We didn't want this picture to look as if it was lit," Badham says. "Even though every shot was carefully lit, we didn't want it to seem that way. There's a documentary quality to it in the sense that the camera just happened to be there, and was catching what you see. Obviously, if you were totally 'naturalistic' and unlit, you'd run the risk of not seeing people's eyes, or you'd have people vanishing,

things like that."

Says Wagner, "During preproduction I suggested that we photograph the hotel lobby with a Steadicam and using only available light, so that John could determine if this would suffice for the film. It would have been an ideal method for this film except for the difficulty of sustaining that 90-minute window of consistent light."

Such a quandary becomes especially undesirable when heart-throb Johnny Depp is starring in a role that misguided pundits are already comparing to Keanu Reeves' in *Speed*. Badham begs to differ, pointing out that *Nick* is not an action film so much as a Hitchcockian nail-biter, shown almost entirely from Depp's perspective. The director cites *Lady and the Lake* (1946), a thriller that was shot from the POV of lead actor Robert Montgomery, as another inspiration for the film's visual style.

Thus, instead of crafting "hero shots" under the sun, Wagner was confined to a light-sucking hotel. "The key was to make the Bonaventure a character in this film," says Wagner. "The hotel is an interesting place to look

at and visit, but when you photograph it, you discover that it's a giant concrete tomb; the tonal values are about the same. The light inside the hotel is never the same, because of the big glass skylights above the lobby, and when it's not constantly changing the position of the highlights because of the sun, it's changing the shadow detail values due to the lack of the sun. My general photographic philosophy is to evaluate the light that you are naturally given and augment it to redirect it into the image that the story dictates. So at the hotel, we would work at lower light levels and add where necessary.

"Our problem was that we had a film that's supposed to take place within an hour and a half, and we did it in 40-odd days. So we had to establish a look — a 'non-look' look — because it was not a show where we were trying to make it look pretty."

This style was quite a change of pace for the cinematographer, who has won two Emmys for his work on the television pilots of *Beauty & the Beast* and *Quantum Leap*, which he characterizes as "beautiful, very stylized kinds of shows." But Wagner assures us that if the look in *Nick of Time* is not picture-book perfect, there are a lot of interesting visuals for the viewer's eyes to follow.

"This look was not supposed to be intrusive," he says. "John and I initially discussed [ways to achieve] the sense that there were always these multi-



tiered levels and the feeling that at any turn or any place [Depp] could always run into Christopher Walken or 'the threat.' Visually, it became like an M. C. Escher etching, where nothing goes down, nothing goes up, and everything seems to go together, and you're never quite sure how converging lines converge. When you see the wide shots of the hotel there's a sense that it goes on forever. You don't know which level is which, or where you're at in relation to the next level. It was a really complex way to work. "

One of the most striking uses of the handheld camera occurs in a pivotal elevator sequence, during which Depp and Walken stroll through the lobby, ascend 35 floors to the top and step out into a corridor. Instead of shooting the scene from outside the small glass-walled elevator or doing blue-screen on a sound stage, the filmmakers executed the sequence in one seamless take. Badham, Wagner, camera assistant Todd Slyapich, sound mixer Willie Burton, boom operator Marvin Lewis, and script supervisor Barbara Thaxton pushed the maximum capacity rule in an elevator cabin made even more claustrophobic by the false soffit the crew rigged up, which housed eight four-foot Kino Flos and four two-footers.

"It was a very conscious decision we made," says Wagner. "I think that there is an energy and a sense of impending doom based upon the feeling that you are literally there. Being in the actual location and moving with the actors really enhanced that feeling."

Since the elevator emerges outside the hotel wall after passing the sixth floor, Wagner was forced to stop down on the rise up, going from a T2.8 on the inside all the way to a T14 on the exterior. The reverse was also true going down. Recalls Wagner, "The Kino Flos had to be dimmed up to their maximum potential on the outside sequences, even still barely giving enough illumination for fill; thus we had to rely upon the film stock's ability to sustain highlight and shadow detail." To further compound the problem, the elevator was glass from floor to ceiling, making it extremely difficult to

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Clockwise from above: *The nefarious Mr. Smith* (Christopher Walken) pitches Watson off a balcony and into the 80-foot abyss of the Bonaventure's atrium. Willing to take the plunge, Depp was fitted with a cable and paratrooper harness under his costume. To ensure a sharp image without motion blur, strobe lights were rigged parallel to his drop path. A-camera operator Bob Gorelick was similarly rigged for a synchronized free-fall as multiple cameras also caught the action from below.



hide the camera and crew's reflection. Wagner also had some fun with in-camera effects, shooting reflections on the outside of the elevator as a double exposure, masking out an area and burning in the desired image afterward. The same method was used to affix a moving image reflected in a stationary railroad car window, simulating the train in motion.

"Roy's crew has a very good training, because he goes back and forth between movies and TV," Badham notes. "They're used to doing long, big page counts." And with the number of setups this director likes to tackle in a day, that sort of rigorous back-

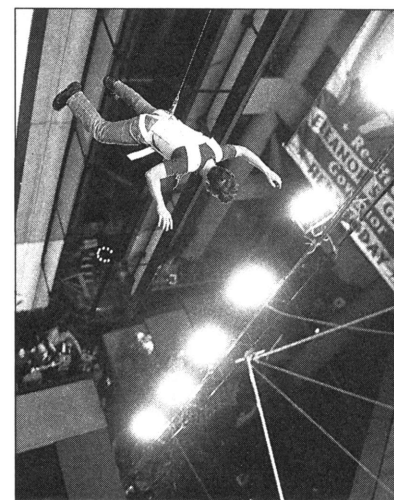


ground comes in handy. "Television is a wonderful training ground," states Wagner. "It teaches you on a daily basis what you can and cannot get away with. It teaches you how to simplify the physical/mechanical operation of executing all of those disciplines that are necessary in order to manifest the director's vision onto film."

Most of *Nick of Time* was shot in the cavernous Bonaventure, requiring the crew to rig six of the hotel's stories. The cinematographer worked with his usual crew, including chief lighting technician Brian Crane, best boy Joe Clem, and key grip Dale Alexander, and it's clear that he appreciated the group's efforts. "The grips and the electricians really made this show," enthuses Wagner.

"We pre-rigged for almost

a month," Crane related from the Culver City set of Fox TV's *Party of Five*, where he and many *Nick of Time* vets work with Wagner. "Basically, we had to make the hotel a working soundstage, because the Bonaventure was up and func-



tioning for the whole shoot."

Along the way, however, the crew still found it necessary to make some modifications — little things like replacing all 1,300 lightbulbs in the hotel's public areas with 150-watt RFL's,

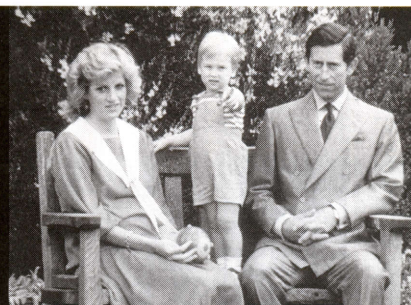
each equipped with half CTB gels. They also bumped up the elevators' electric systems, changing the power from 80v to 120v. And instead of dealing with three or four generators, Crane figured the best bet would be to tie-in to house power.

Especially impressive was the communications system they rigged; each floor was color-coded. On Badham's fast-moving set, the large rigging crew was constantly leapfrogging the first unit to save time on setups, and the scope of their job was enormous.

"We had a massive number of lights," confirms Wagner, who wistfully recalls that his only previous experience in the hotel was attempting to light it for an episode of the TV series *Houston Knights*. "On that project we dis-



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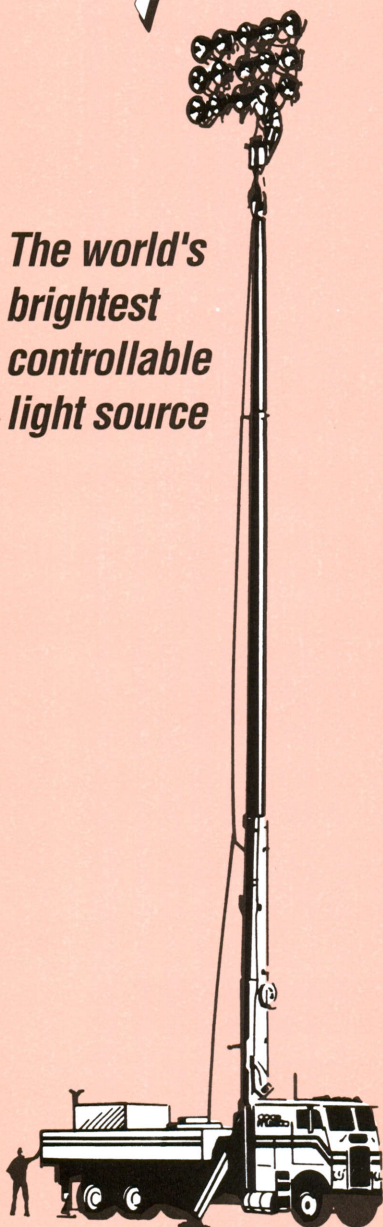
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covered that when you turned a light on, thinking that it would accomplish the job, it would strike a small portion of the curved and triangulated surface of the hotel, spilling out into nothingness in the ozone beyond. The building has large open expanses that are intersected by bridges and walkways that angle and intersect at odd angles. It's brilliant architecturally, but it's overwhelmingly difficult to light. From that experience, I determined that my light source had to have an aperture larger than the biggest open span area in the hotel. We needed to come up with some kind of light plot that would allow John to photograph in any direction he wanted. I wanted to have a structured kind of light setup so he could walk into any area and be able to photograph it. To aide the actors and continuity, since the story took place in real time, we attempted to photograph the story in continuity, which meant that we might go back to an area or particular setup on numerous different occasions."

The basic lighting plot for the hotel interior was accomplished by building 6' x 14' frames on all four sides of the hotel atrium, with six HMI 4K Pars behind each one. Alexander remembers that "we experimented with Rosco Opal, 250 and 216, and we ended up going with 216." He masked the frames with two-inch wide strips of tape so they read in-camera as window frames.

Extending the boundaries of a normal "set" situation was very helpful to Depp, who thinks it brought an unencumbered aspect to the performances. Says the actor, "With Steadicam and handheld you don't feel like you're bound within frame lines; you feel like you can go anywhere, you can do anything. Basically, they'd say, 'Where do you want to go? What do you want to do? This is what we'd like to see,' and you'd block the scene. So if I needed to go 20 feet in a certain direction, they were prepared."

The filmmakers primarily went with a multi-camera approach (using both the Steadicam and handheld, and occasionally another Panavision Platinum package 180 degrees away) which very

much appealed to Depp. "I really think [multi-cam] is the way to go," he says. "It creates a spontaneity and a freshness which is nice. I think they were going for, and achieved, a claustrophobic feeling. You also never feel like you're watching a camera film people. It feels very natural, like you're actually watching somebody."

Marking his first shoot as A-camera operator (with Slyapich focus-pulling the Steadicam), Bob Gorelick not only appreciated the opportunity, but was pleasantly surprised at the chance to contribute his own input. He says, "Even though they had a great new video tap [Panavision's brand-new fiberoptic CCD flicker-free unit, with ten times the old resolution], it didn't always pick things up, and I'd see something interesting going on with Johnny or Christopher's face, and suggest we could go in tighter."

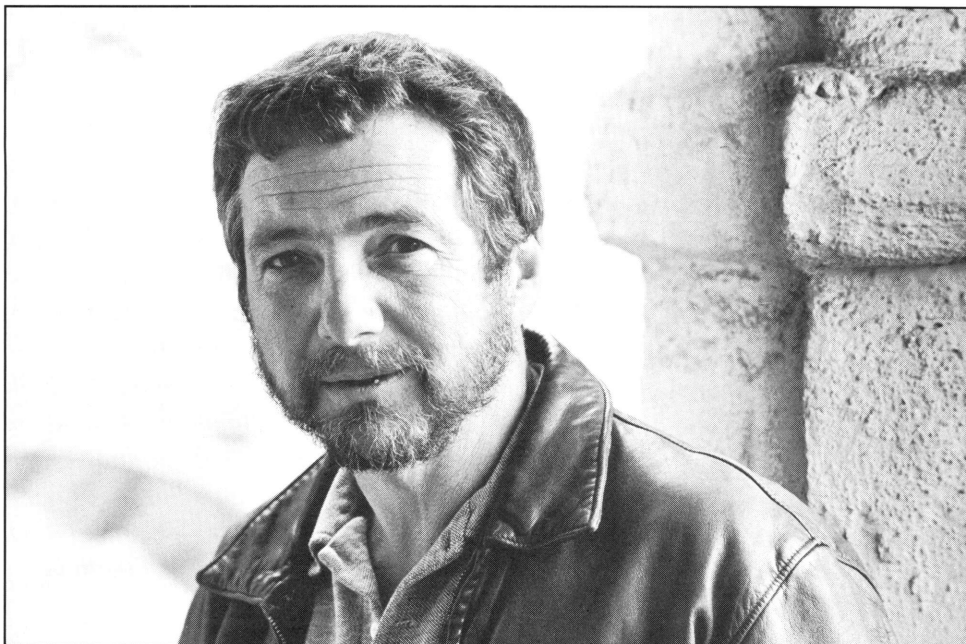
Tighter seemed to be the rule on this shoot; Wagner often chose to go with a 150mm Primo, 200mm Nikkor and even the 300mm Nikkor lens on both cameras. Even a 75mm was considered wide, although there was some coverage in the 14.5 through the 75mm range. There was actually only one big establishing shot in the film — part of the plan to make the landscape of the film "seem more labyrinth-like," says Wagner.

All involved feel that the extensive use of Steadicam pays off beautifully on-screen and never stands out as contrived. Wagner was also quite pleased with the new Panavision lightweight zoom on the Steadicam, which enabled the filmmakers to change focal lengths within the shot.

Wagner liked the Kodak 5298 film stock, used for all interiors, because of its speed. "We were among the first to use it — on *Drop Zone* — and I was impressed with its dynamic latitude," he reports. "I knew it would handle wide latitudes of light. It also digs into the shadows quite well, which we needed."

Kodak 5293 was used for all exteriors. "I wanted to stick to two film stocks. I wanted to make sure that I had enough exposure if we experienced dark days, which we did on numerous occasions.

Robert Primes' feature and TV credits include *Bird On A Wire*, *The Hard Way*, *thirtysomething* and the pilot for *Reasonable Doubts*. His commercial credits include Suzuki, Allstate, Honda, Disneyland, Yoplait and MCI



“The Clairmonts have the same attitude I look for in a crew member: *enthusiasm*. Caring more about the images than about the business,” says Director of Photography Bob Primes ASC

“I remember calling Clairmont about six years ago and saying: I need to rent about a hundred 6x6 grads and polarizers from you – and nothing else!” says Bob Primes.

Attitude

“We were going to shoot a car spot, using motion-control time-lapse and a custom rotating filter wheel in front of the lens. Filters usually come in sets and with cameras, of course. A hundred of these exotics would take a serious bite out of their inventory. But Terry said: Let’s do it – *the shot sounds interesting.*”

What I look for in a crew member

“That’s the same attitude I look for in a crew member: caring more about the images than about

the business. And that’s what I get from the Clairmonts – they seem to be enthusiastic about cinematography.”

They supported me from the early days

“They gave me support right from the beginning, when I was far from being an established cameraman. Any custom rig I asked for, they came up with. Not making a lot of money on it. Working on the weekend to get it right.”

Part of the team

“That attitude means they’re simpatico – I’ve learned to think of them as a creative part of

the camera team. They have the same *values*. It’s been true for thirtysomething, for *Bird On A Wire* and for my TV spots.”

They remember a shot years later

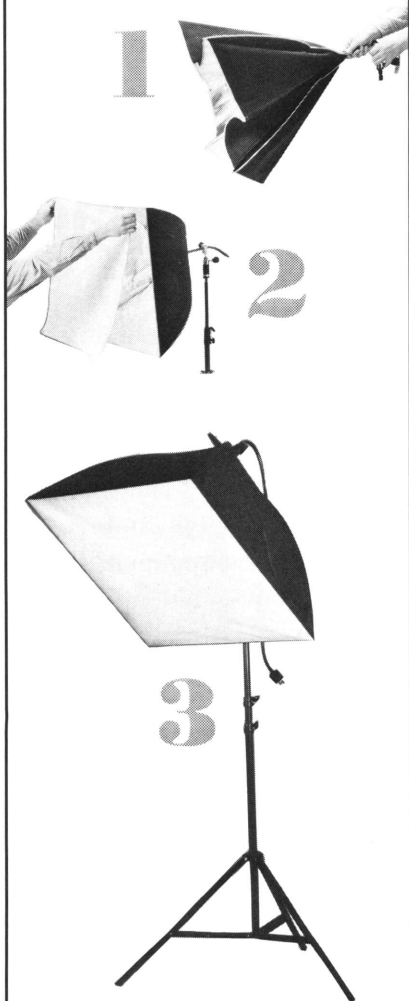
“Clairmont is an incredible research bank,” says Mr. Primes, “And they’re always working on still more innovative things. Years later, both Alan and Denny can remember a shot and how it was done.”

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"On one such series of days we encountered very dark winter days which required a dramatic solution in order to sustain the already established look. We built a 24-light 4K tower which could be rolled into place on the pool deck of the hotel. With this we could simulate strong cross sunlight over a very large area."

The handheld camera operator was Gary Huddleston, whose first assistant was the cinematographer's brother, John Wagner. With a loaded 1000-foot magazine in back and a 200 or 300mm Nikkor in front, Huddleston quite often found himself executing whip pans with a 65-pound Panaflex Platinum rig on his shoulder.

"Gary was like a loose cannon with the handheld," marvels Badham. "Most of the time he was shooting any damn thing he wanted, and we wound up with the most amazing inserts. There's a wonderful shot that starts on Christopher Walken, moves down to his gun, and then pans over to Johnny. I didn't ask for it, but I'm sure glad to have it."

Both Huddleston and Gorelick, as well as the entire crew, were all very responsive to the creative atmosphere fostered by Badham and Wagner. The director encouraged his operators to read the script pages daily so they could be more involved. "That way," Badham says, "they don't think, 'I'm just a short-order cook.' They contribute."

Wagner concurs, pointing out that the erratic nature of *Nick of Time*'s story lends itself to on-the-fly views not normally seen in the cinema. "Basically," he laughs, "This show was about people knowing technically how to do their jobs, and choosing when and how *not* to do them correctly."

"If the composition fails, and it's on the 'wrong' side of the frame, or if the horizon line is pitched, those kinds of accidents become what I call the 'happy accident,' Wagner says. "If it was a mismatch compositionally in sizes, or in light, then it was okay. It wasn't lazy filmmaking because there was a determination made as to what was acceptable or not acceptable. If mistakes like that be-

come awkward, and put the audience at odds with what is conventional, then that is what's going to put them in Johnny's shoes."

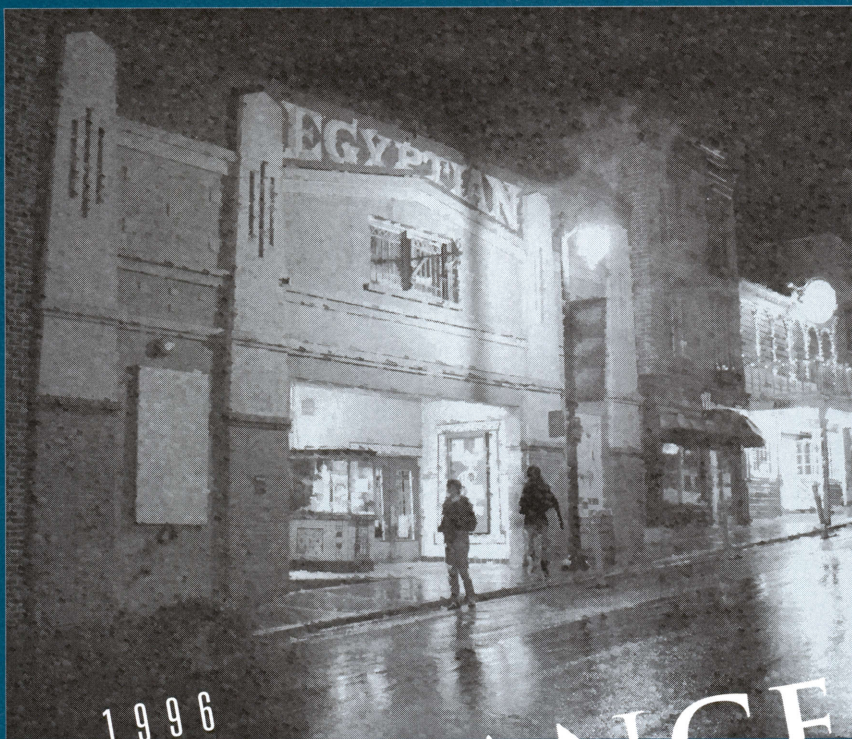
One particularly vicarious "you-are-there" shot involves Depp hurtling toward the lobby fountain from an upper floor. Sounds like a bluescreen special? Not quite. "I suppose we could have done something digitally in the lab," Badham shrugs, "but I wanted this to look real."

To make it happen, the grips built a 78-foot light tower parallel to Depp's "drop zone," which was fitted with eight Denny Clairmont strobes. Says Wagner, "The strobes aided in freezing the actors face in frame so that he would not blur within the frame, which would have made him unrecognizable as he fell. The difficulty was in positioning the individual lamps on the tower, since once it was erected, there was no way to get to them. With no time, we had to guess an approximate position. The strobes are not very powerful and had to be placed just outside of the frame line for the handheld descender camera." Wagner positioned two cameras on the ground using 150mm and 300mm lenses. On another pass, a 33-foot TecnoCrane was used for some high-speed tracking shots.

They then got the shot they wanted with the help of a synchronized free-fall by camera operator Gorelick (using a 35mm lens on an Arriflex). He operated by looking at a small video monitor attached to the camera, somewhat like a sports finder, while Depp himself used a couple of British World War II paratrooper training devices to negotiate the 80-foot drop. With stunt coordinator Shane Dixon looking on, they got a shot the director deems "absolutely fabulous" in just 14 takes. "It looks so real because it *is*," says Badham.

Having examined *Nick of Time*'s final cut at the lab for initial color timing, Wagner reports that Phil Hetos, DeLuxe Laboratories' master color timer "who's seen everything," was blown away by the falling scene. Reflecting on his experience shooting the film, Wagner quips, "It has a sense of chaos and inconsistency — which I feel we were very consistent with." 🍷

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Director Martin Scorsese clearly understands the parallels between high-rolling and Hollywood filmmaking. When playing with "house money" loaned by a studio, even the best directors are essentially rolling the dice, but the chances of hitting the jackpot can

be increased considerably by assembling a first-rate production team. For his latest picture, the sprawling and ambitious Vegas crime epic *Casino*, Scorsese convened an accomplished group of artisans, including Academy Award-winning cinematographer Robert Richardson, ASC (*JFK*) and his crack crew (gaffer Ian Kincaid, key grip Chris Centrella and first camera operator Don Thorin, Jr.), as well as Academy-nominated production designer Dante Ferretti (*The Age of Innocence*, *Hamlet*, *The Adventures of Baron Munchausen*) and costume designers Rita Ryack and John Dunn. Also on hand were

a pair of seasoned Scorsese regulars, editor Thelma Schoonmaker (who earned an Oscar for her brilliant snipping on *Raging Bull*) and assistant director Joe Reidy. In co-writing the film, Scorsese re-teamed with another Academy nominee, *GoodFellas* co-scripter Nicholas Pileggi.

A period piece set in the flamboyant Seventies, *Casino* relates the tale of Sam "Ace" Rothstein (Robert De Niro), an expert handicapper from Chicago who enters the upper echelons of the Las Vegas crime world when he is selected by the Mafia to head the Tangiers Corporation, a cash-rich



Ace in the Hole

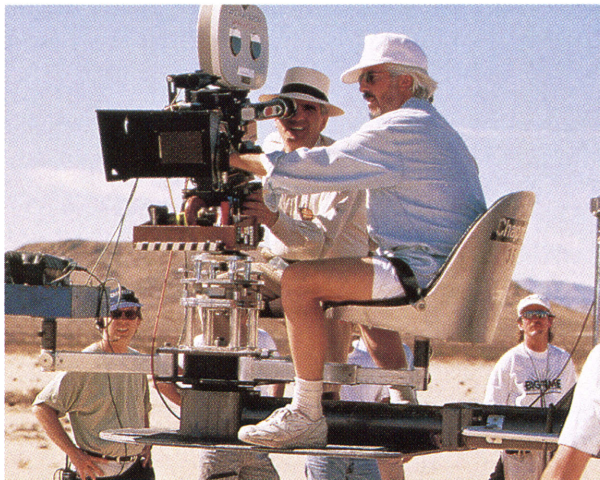
Director Martin Scorsese recruits a crack production team, including Academy Award-winning cinematographer Robert Richardson, ASC, to help create his complex Las Vegas crime epic, *Casino*.

by Stephen Pizzello

such as *Mean Streets* (1973), *Taxi Driver* (1976), *Raging Bull* (1980), *The King of Comedy* (1983) and especially *GoodFellas* (1990). *Casino* also encores a few stylistic techniques that were used to great effect in *GoodFellas*, such as freeze-frames, flashbacks, extremely rapid dolly moves and expansive voice-overs by various characters. While Scorsese concedes that his new film bears a superficial resemblance to some of his past pictures, he maintains that *Casino* is a tale with considerably greater scope. "There are certainly some similarities to *GoodFellas* in the way the story is told," Scorsese relates. "But then, Nick Pileggi and I also wrote *GoodFellas*, Pesci and De Niro were in that film, and *Casino* deals with a comparable subject matter. When you have the same writers, the same actors, and similar themes, you're quite naturally going to have some parallels in style. Because this film covers a number of years, we used the voice-over narration to carry the viewer through, and there are also a lot of quick cuts in many scenes. But this film is different than *GoodFellas*

because we have a much larger canvas this time: it's America, it's Vegas, it's the mob out West! There are over 289 scenes, so it's a much bigger picture than my previous films."

Asked why he is so drawn to mob-related subject matter, Scorsese muses, "I find these types of stories inherently dramatic. Even the ancient Greek playwrights always said that the antagonist is more interesting than the protagonist. Let's face it, the



Far left: Hand-picked by the mob to head the Tangiers Corporation, Sam "Ace" Rothstein (Robert DeNiro) keeps a keen eye on his kingdom. The gaming room scenes, filmed on location at the Riviera casino, had to be shot during off-hours so as not to interrupt high rollers. Note Par cans in overhead lighting bay. **Near left:** Gamblers of another kind, Scorsese and Richardson sought to infuse the dynamic crime tale with noir elements while "dealing with the real look of Vegas itself," according to the director.

gambling concern. Accompanying Rothstein during his rise are his lifelong friend, mob muscleman Nicky Santoro (Joe Pesci), and the alluring Ginger (Sharon Stone), a hustler for whom Rothstein harbors a libidinous obsession. The trio's ascension to the plush, privileged realm of Vegas royalty eventually leads to excesses and intrigues that threaten to ruin them all.

Film buffs will note the recurrence of themes — the exhilaration of power and the inevitability of betrayal, fueled by almost fetishistic fixations — that Scorsese has explored in past films

bad guy is more interesting than the good guy! My attraction to this material also goes back to where I grew up, and being familiar with a certain kind of lifestyle. When I was 8 or 9, I saw that lifestyle around me in the streets, and I recognized it as another, more rebellious way of living, rather than set-

tling into the norm or the mainstream.

"That's a pretty big subject," he asserts. "I find these characters and their lives to be almost a microcosm of the outside world of politics, government, and so on. It's like the old line from *The Threepenny Opera*, when Mack the Knife makes a speech as he is about to be hanged. He asks the people, 'Why are you hanging me? Ultimately, what's the robbing of the bank to the founding of a bank?'"

Pausing to chuckle at the wisdom of this rhetorical query, Scorsese expands, "One man robs legitimately, and the other man robs illegitimately. In a street philosophy, quite often the illegitimate thief is seen as the more honest one. I'm not saying I'm that way, or my family's that way, but when you grow up in the streets, that's what it's like. You tend to look at things a little differently. But of course one has to recognize that such a lifestyle is, at the very least, extremely destructive."

Given the visual opportunities inherent in the gaudy Vegas milieu, Scorsese seems the ideal director to tackle an in-depth examination of the nation's Gambling Capital. A master film stylist whose groundbreaking techniques have been aped by an entire generation of filmmakers, the director has perfected a kinetic, adrenalized camera style that seems tailored to the amped-up emotions of a crime drama. Citing the key influences in the formation of this style, Scorsese offers, "Ultimately, the thing that inspired me the most was the way Orson Welles combined camera movement and wide lenses in *Citizen Kane*, *Touch of Evil* and *The Lady from Shanghai*. I was also very influenced by Fellini's camera style in *8 1/2* and *Juliet of the Spirits* — mainly *8 1/2*. In the case of *Kane*, I saw that at an age when I was a film student. So I would say to myself, 'Gee, I wonder how he got that effect,' and I would find out which lens he'd used. Then I'd try to get a similar effect in 16mm, and I could figure it out: 'Well, that lens is equivalent to this lens in 16mm, so I think I'll try it.' I'd put the lens on the camera, and run along a wall with it, and realize, 'Hey, things seem to move faster when I

do this. The wall looks like it's just speeding past me.' I really have an attraction towards a kind of self-conscious look in terms of camera style. I kind of like that."

The director found a kindred spirit in Richardson, who was brought on board when delays in the start date led Scorsese's usual director of photography, Michael Ballhaus, ASC, to accept an offer to shoot *Outbreak* with director Wolfgang Petersen. Scorsese and Richardson had previously met when the latter interviewed for the cinematographer's slot on *Cape Fear*, an assignment that eventually went to Freddie Francis, BSC. The Scorsese/Richardson teaming offers an intriguing collision of visual genius, made all the more fascinating by the fact that Scorsese once taught a New York University film course attended by the cameraman's close friend and frequent collaborator, Oliver Stone. Explaining his decision to work with Richardson, Scorsese says, "I admire the look of Oliver Stone's films. When Michael Ballhaus wasn't available to shoot *Cape Fear*, I met with Bob, but I later decided to work with Freddie Francis because I wanted a more traditional look. Freddie's photography had that kind of look — a beautiful, almost orthodox view of lighting — and I thought his approach would match perfectly with the material."

"But I remember being very impressed with Bob because he sent me some photographs — fragmented, interesting pieces of images like faces and so forth — that he felt dealt with the subject matter of the film. He wasn't trying to be literal in suggesting a specific look; he was trying more to convey a theory or a philosophy in terms of the way the film would look. I was impressed with somebody who would go into that sort of detail."

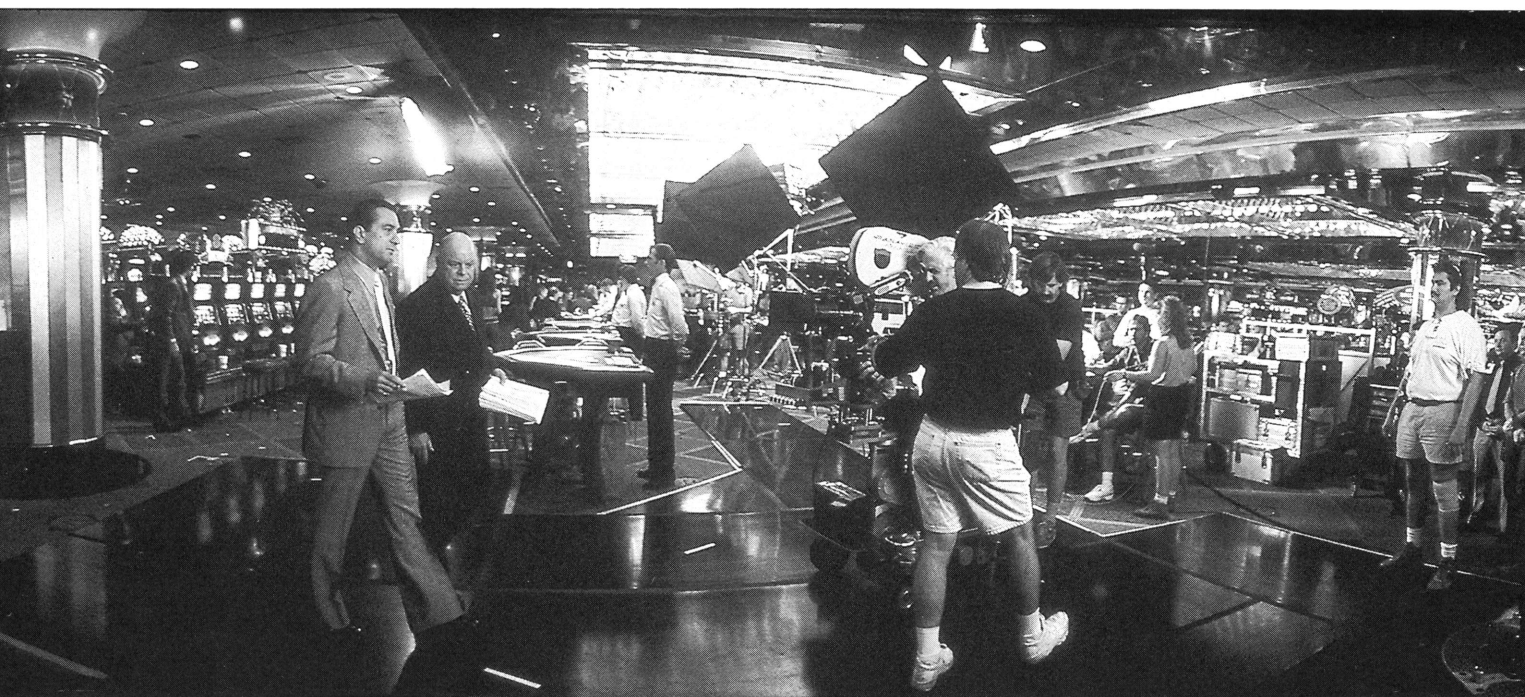
Detail, of course, is the backbone of any Scorsese film. The director is well-known as an obsessive planner who storyboards nearly every shot, down to the precise movements of actors and corresponding camera moves. On *Casino*, however, difficult logistics and the sprawling nature of the story forced Scorsese to depart from his plans on more than one

occasion. A good portion of the film was shot inside the Riviera casino during off-hours, but the production team was forced to work around the gambling den's night-owl activity. "Tremendous constraints were placed upon us in terms of the time we had to shoot," notes Richardson. "In order to use an actual working casino, we were forced to work night hours, starting at 10 or 11 p.m. and working until the same hours in the morning. The graveyard shift was the time when it was easiest on the Rivera, so we wouldn't distract the casino's clients."

Despite the late shooting hours, the filmmakers found themselves cocooned in the casino's constant clamor, a grating change from the churchlike silence that usually reigns on a Scorsese set. Assistant director Joe Reidy, who generally keeps things quiet so the director can concentrate, confirms that the surroundings were less than ideal. "Every assistant director has to adapt to his particular director, and I like to be a calming presence on Marty's sets," Reidy comments. "Rather than acting like a dictator, I like to create an atmosphere in which the director, the actors and all the creative people can work in peace. In my opinion, being calm but in control is the best possible tone. Marty likes a very quiet set, whereas some directors, like Oliver Stone, like to have the buzz of work all around them. Normally, there's no chaos on Marty's sets. On this film, of course, there was no avoiding it because of the circumstances at the casino. It was a very difficult atmosphere to work in."

Richardson notes that while he had a substantial amount of prep time — between four and six weeks — Scorsese was often tied up during this period, performing rewrites on the script and firming up the film's casting. This lack of contact caused the cameraman to worry that he would have trouble anticipating his new director's needs, but that concern began to dissolve when Scorsese met with Richardson to screen several classic films from his private collection.

"I first showed Bob *T-Men*, a black-and-white film di-



rected by Anthony Mann and shot by John Alton," Scorsese reveals. "It's one of the quintessential film noirs, and certainly one of the best-photographed. Alton's photography on that film is the very essence of film noir. Bob and I also watched another film by Mann and Alton called *Raw Deal*, as well as a Technicolor IB print of an Allan Dwan film called *Slightly Scarlet*, which was made in the Fifties. It's kind of a gangster movie, and it was also shot by Alton. It has a certain kind of theatricality about it, and it's certainly a film noir in color. Alton was doing things like lighting through lampshades — in Technicolor IB! That was the kind of thing we were trying to go for on *Casino*, but we were also dealing with the real look of Vegas itself, which altered our approach from time to time."

Says Richardson, "The Alton films we watched together were inspirational in many ways, especially in terms of the quality of the light. But they were primary inspirational because they helped the two of us develop a vocabulary and syntax. By forming a common grammar, we could expand on what we were doing. Knowing what Martin liked or disliked about something allowed me to

give him options visually that I might have been more reticent about had we not had those discussions. In any new relationship, you go through certain stages of communication, some successful and some not so successful. At the beginning of this project, I was extremely tentative in my suggestions, but I got a bit bolder as we went along."

When production was imminent, Richardson and Reidy received special shooting scripts filled with Scorsese's observations about the purpose and perspective of each scene. "Martin's notes are voluminous and precise," says Richardson. "His notations detail a shot-by-shot description of each sequence, and also include drawings which express an exact composition that he wants to replicate. If a sequence dealt with gaming, it might tell you shot by shot how he wanted to shoot the sequence — from the cards, to the movements of the players, to the introduction of each of the characters, and so forth. In many instances I relied upon Joe Reidy to translate Martin's notes. To begin with, for me, trying to figure out Martin's handwriting was like trying to decipher the Dead Sea Scrolls! Secondly, he devises his

shots for the optimal situation — a studio. Unfortunately, we shot primarily on location. Hence, certain angles became nearly impossible to achieve. Joe was crucial in lending insight, in terms of both the language of the notes and his own understanding of Martin. This understanding allowed me to more readily suggest compromises, because I was extremely reluctant to trespass upon the sacred soil of Martin's textbook of shots."

One aspect of the project that was settled early on was the format in which the film would be shot. As he had on *The Age of Innocence*, Scorsese decided to execute his vision in Super 35, which would allow the picture to be reformatted for television broadcast. "I wish I could just shoot straight anamorphic, but the lenses we had in this situation were actually much more diversified," says the director. "To a certain extent, shooting a film this way can make certain technical aspects more difficult, but to me, anything is better than panning and scanning on TV. We can re-frame just about every shot we did on this picture for video."

Casino marked the first time that Richardson had worked in Super 35, a format for which he

The crew sets up in the Riviera. To better control lighting in the gaming areas, extra bulbs and chrome-plated Par cans were added to existing overhead lighting bays, and the entire setup was controlled through a dimmer board. For wide shots of the casino floor, Richardson aimed Dinos and Maxis through muslin. The cinematographer also made extensive use of cutters to keep reflective glare out of his lens.



Ginger (Sharon Stone) casts a venomous look at Rothstein in one of the film's typically glitzy tableaux. Richardson's use of moody, tabletop source lighting adds emotional tension to the scene.

has mixed feelings. "I was a bit hesitant because Super 35 forces you to have a reduced quality negative at the final stage," he admits. "It's an entirely optical process — a blow-up from the first frame to the last. From what I've seen, I'm happy with what we achieved. [At the time of this interview, Richardson had not yet timed the picture.] Furthermore, the primary reason I didn't press to use anamorphic was that Martin's shots often require adjustments on a zoom during the shot. To shoot anamorphic with a zoom was impossible at the lighting levels I wanted to work at — from 2.8 to 4. I also wanted to shoot on Kodak's 93 or 48 whenever I possibly could because of the blow-up."

Richardson used 5293 for almost all of his night scenes, both interiors and exteriors. All of the film's day exteriors, as well as most of the day interiors, were recorded on 5248. Richardson's camera package was Panavision, and he used both a Platinum and a Gold. He worked primarily with Primo lenses, particularly the 4:1 zoom. In addition to a complete set of prime lenses, he also carried 11:1 and 3:1 zooms. "Using the Primos in Super 35 was strange for me, because I'm so accustomed to seeing [the wide-screen 2.35 format] shot with either E- or C-series lenses in anamor-

phic. The 4:1 was really our work-horse lens; a good three-quarters of the picture was shot on that zoom. Once I started using it as a primary lens, I preferred to stay within its quality range. When you start off with something, it's wise to stay with it, because the limitations or strengths of the particular lens you're using become relative throughout the picture. I prefer to stay away from anything that would help you see a difference between lenses unless it's deliberately sought after."

Richardson notes that in general, Scorsese stays away from long lenses. The director confirms that he prefers a wider field of view, noting, "I really like working at 32mm, and then 24mm. Those lenses are a bit wider, and I like their crispness. Sometimes I work even wider, at 18mm, or 10mm. Those lenses were particularly effective for shooting the situations in this movie — the casino, the desert. I happen to like the sharper, deep-focus look of films from the Forties or Fifties. I very rarely use longer lenses."

Once the filmmakers had assembled their photographic arsenal, they began shooting in and around the film's central location, the Riviera casino. Scorsese points out that the film's Seventies period did cause a few problems, given

that Las Vegas has undergone a major facelift in the years since that era. "We had to be careful where we shot, because certain buildings weren't there in the time frame of the picture," the director relates. "To get around that, we did a lot with the production design of the sets themselves, by Dante Ferretti, and the costumes, which were created by Rita Ryack and John Dunn. It's all very colorful, and it really gave Bob Richardson something to play with — especially De Niro's wardrobe."

To simulate the look of the Vegas strip of the Seventies, Scorsese enlisted the aid of famed graphic designer Saul Bass (*Psycho*, *The Age of Innocence*) and the effects house Matte World Digital (see sidebar on page 43). Computer technology helped the filmmakers take a trip back in time for exteriors, while interiors were shot mainly in the real casino.

"We had pretty much the entire casino at our disposal for six weeks, except for Friday, Saturday and Sunday nights," Scorsese recounts. "It was still a very difficult thing, because the crew had to wrap in and wrap out every night, so we lost a couple of ours there. We had certain areas to work in. We had a lot of the blackjack tables at our disposal, but when we wanted a craps table or a baccarat table we had to work it out in advance. At one point, when we were ready to shoot the baccarat scenes, we couldn't do it, because one of the tables had a high roller, and we would have distracted him too much if we were at a nearby table. We did try to distract him from playing so we could start working, but he just kept on winning! And naturally, the casino wanted this guy to keep on playing. That was a typical situation where we'd get to the location, set everything up, get all the actors ready, and be unable to work. In those situations, we had to figure out what other scenes we could shoot. We always had back-up scenes ready."

"In many cases," the director notes, "I had things planned before we got to the locations so the idea of the shot would be something I could keep — whether it was a track-in or track-out, a zoom, a pan left or right, a pan away from

a character after a certain line of dialogue, things like that. I think this was something different for Bob, whereas Michael Ballhaus knew about my approach before the first picture we did together, *After Hours*. He was familiar to the extent that he would memorize or re-write the list of shots and drawings until he had them in his head. He would be able to tell me a few days in advance whether we'd be able to get the shot as I'd outlined it, which shots would give us the most problems, and so on. But my previous films were much more tightly planned than *Casino*, because this film has a bigger story. I felt on this picture that I was able to have a happy combination of the two approaches — on the one hand, to have as much as possible planned out, and on the other, to have the excitement and tension that came from the nature of Vegas itself, where we were forced to improvise shots and dialogue, or shoot against certain backdrops and keep running with it.

"What we got from the real location was a kind of electric energy in the frame," Scorsese concludes. "You could feel it, especially in the backgrounds, where people were really moving around and playing the games. The casino scenes have a rather phantasmagorical feeling. The camera movement, combined with the lighting and the colors, creates a kind of hallucinatory effect that's very interesting."

Responding to this assessment, Richardson offers, "The colors in the film are quite strong, particularly inside the casino. I took as inspiration Alex Webb's photographic work from the tropics, especially his book *Hot Light/Half-Made Worlds*. Alex's eye for contrast with color is mysterious, seductive and terrifying. I felt that these were appropriate elements for *Casino*, and when combined with the delusional, almost carnival atmosphere of Vegas, the hallucinogenic effect Martin speaks of came alive."

The cinematographer's approach to the casino setting was based on a number of factors. "Not knowing who Martin was and what his feelings were towards lighting, I played it a bit more con-

servative at first, when we were shooting in the casino," Richardson admits. "As our vocabulary increased over the course of the production, I found myself extending a bit within his preconceived framework. I think you can see my style in the picture, but my presence is perhaps not as muscular as it's been in some of the past films I've worked on. It may have actually been good that we started with the casino scenes, because the location itself forced many considerations upon me; it was telling me how I had to work. The sheer scale of the location, and the practical light level we had to work at, dictated a great deal of my approach. Vegas speaks in a very loud voice. Sometimes it's impossible to avoid that voice, and you have to go with a mindset of reason that allows you to accept the limitations that are drawn for you instead of fighting



them. By the end of the picture, I was telling myself in my notes that I had to find a simpler approach. I was fighting too strongly to make the locations work to a vision I had rather than working to what the location was asking me to do."

Richardson was best able to control his lighting when shooting sequences involving isolated action — gaming tables, or single shots of characters. "We enhanced the lighting over the tables by adding 50 percent more bulbs. In addition, Ian and Dante designed a lighting rig that allowed us to hide over a hundred chrome-plated Par

cans within the lighting bays. We also added a dimming board for all of this, allowing me to raise or lower the value of a background or foreground zone, thereby drawing or repelling the camera's eye. One of the major problems with shooting in a casino is scale. There are no easy shots. Even the simplest close-up was complicated by the fact that behind every face, there was a space that stretched 300 feet or more, cluttered with people, lights and gaming facilities. In some situations, the apparently random nature of the background design was to our advantage, but at other times we sought a more precise visual frame. It became our challenge to isolate and control [the elements in the frame.] If the casino had been built on a stage, Dante and Martin would have designed a more cohesive and film-friendly environment. I personally would have preferred working in a studio, not only from the perspective of light but also of sound. At times the casino was a detriment to mental focus. With all of the aberrant soundbells, whistles, loudspeaker announcements and music, I found it extremely difficult to maintain concentration. But, needless to say, the cost of constructing a set that large would have been staggering. Fortunately for me, Barbara DeFina, Martin's longtime producer, understood the inherent problems and supported me in attempting to minimize their damage."

Gaffer Ian Kincaid recalls, "In the casino itself, our rigging crews crawled through the air-conditioning vents and went through a lot of rigamarole so that we could facilitate what the casino needed. The casino wanted all of the lights out of the way; anything we left overnight had to be virtually invisible. When we were working in the Riviera, we had to bring our cables in and out every night. So we designed a scenic baffle that looked somewhat like a slot machine so we could cover up our dimmer area and leave it in place. That allowed us to just bring in our cables and hook them up every day."

For wide scenes that covered the casino floor and left little room to hide fixtures, Richardson generally worked with very large

Mob muscleman Nicky Santoro (Joe Pesci) takes a portentous phone call. To lend the scene its ominous, bluish hue, Richardson aimed unfiltered 18K and 6K HMI Pars at the actor from behind.

This page: Protecting his eyes, Scorsese is dollyed through a special effects fireball while capturing a ground-level view of Rothstein being dragged from an explosion. Jokes the director, "Bob [De Niro] insisted that I ride the dolly, and he made sure the flames were turned up real high!"

Opposite: Different views of the car-bombing scene were used throughout the film, creating a "gradual reveal." The actual outcome of the scene becomes clear only in the latter stages of the story.



lighting sources — Dinos or Maxis — aimed through muslin, or used in combination with 25' x 25' or 12' x 12' Griffolyns. "I was shooting at 2.8 on 5293. As I said, throughout the picture, I generally tried to work between a 2.8 and a 4. I didn't want to have too much depth of field. I often couldn't light the entire set, and I was worried about too many areas falling off into pitch black and losing a sense of depth within. I found that the 2.8-4 range provided depth with some semblance of security for [first assistant] Don Thorin, Jr., who pulled focus on the show. It was a very difficult show for Don, because if the actor was off his mark even slightly when we were doing longer lensing on the 4:1 zoom, you could see a difference in focus within half an inch."

Says Thorin, "We did a lot of zooming on this picture, and the focusing was a primary concern for Bob. He's very particular about it, and he looks at it carefully. This was certainly a challenging shoot from my perspective, because there was a lot of camera movement throughout, and some of it was very unusual. We executed quite a few shots with the Pegasus crane

— zooming and craning at the same time."

Several precautions were taken to prevent reflections in the heavily mirrored confines of the casino. Richardson made extensive use of cutters to keep bouncing light out of his lens, and also added special non-reflective elements to a series of stainless steel columns around the casino floor. "Because of those columns, the light very often bounced back and forth no matter what angle we were shooting at. To help things, we had false non-reflective elements to place on the columns if we couldn't avoid the reflections. A column might be split into 12 strips, six inches wide and 10 feet high. One strip might be highly reflective, while the one next to it would be more brushed steel. So we'd place our own brushed steel element over the reflective strips to bring them down to the neutral gray zone. If that didn't work, we used painted elements with the feel of brushed steel."

Other sequences required more drastic measures. One, which took up just an eighth of a page in the script, was an overhead tracking shot that floats above De Niro

as he walks through the casino. "Because of the height we needed to achieve it, we had to move to another location, an abandoned casino," Richardson explains. "The ceilings within the Riviera were so low that we never could have pulled off such a substantial move; we had to carry the width of two tables on either side of the character in the middle of the frame."

Key grip Chris Centrella expounds, "To get that shot, we had approximately 140 feet of dolly track raised up on beds that were about 14 feet high and 10 feet apart. On top of that we mounted this specially configured Pegasus crane so that Bob could sit about 45 feet in the air. He was jammed right up into the ceiling!"

The Riviera's low ceilings also led Richardson and his crew to develop the "mus-ball," a device similar to a Chinese lantern. Crafted from a metal skeleton wrapped in muslin, the mus-ball could be built in several sizes. Most frequently, the device contained three 2K bulbs wired to a dimmer, and it was lightweight enough to be lowered and raised with the help of a line attached to a boom pole. "I could generally get the ball

on the opposite side of the actors and get a keylight from the direction I preferred," says Richardson. "Part of the dilemma in such a situation is that the actors aren't locked down; they don't just sit there, so you need to light with something you can hide. Sometimes we would move the mus-ball with the actors. There's one scene in which Sharon's character walks into a restaurant and joins a friend of hers. It was a practical location at the Riviera, and hanging lamps was difficult because the ceiling was too low. As a result, we could only work with a few hidden bounce sources and the mus-ball. We had to go from a standing position to a sitting position two-shot and then into a close-up of Sharon. So we lowered the ball down and swung it in behind her as we made the corresponding move, which put the light in a more flattering position.

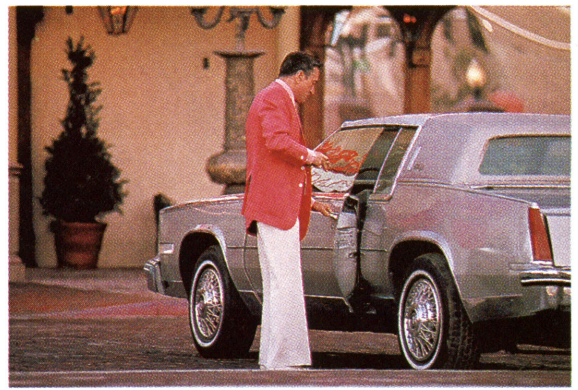
"Clearly, with Sharon, we had to treat her with care, which is not always easy if you consider Martin's attraction to camera movement. On the other hand, there are several sequences in the film where we deliberately attempted to show her falling apart physically, and we didn't try to hide anything with makeup or lighting. In those situations I sometimes went with fluorescents, which I'm not generally prone towards. I would use Kino Flos, because I find them icier. Normally I'm drawn towards working with larger sources that are softer, allowing for the shadow areas to fall off."

The mus-ball also helped the cinematographer in dialogue situations shot with two cameras. Despite the limitations this strategy imposes upon lighting and framing considerations, Scorsese often uses it to elicit electrifying improvisations from his actors. "One thing that's only become clear to me in the past few years is that in the same way I was affected by Welles' work, I was affected by the films of John Cassavetes — especially *Shadows*," Scorsese reveals. "I guess in a funny way I'm combining their styles, which can cause some problems when you're on the set! Very often you may have to alter your plans for a camera shot

in order to incorporate something happening with the actors' performances that you feel is really truthful. Often it's best just to stop moving and shoot the actors' faces. . . they might be very expressive, and if the actors are cooking for you, you don't have to worry as much about the look. You want to work out, with the director of photography, a way in which the lighting won't necessarily have to be compromised. If you do need to compromise, you might be able to use your original ideas for the shot in another scene where the opportunity for improvisation is not as strong."

A typical two-camera situation arose while the crew was working in the Vegas desert, shooting a dialogue scene involving Pesci and De Niro. "My initial plan was to use backlight, because I knew we'd have daylight that approximates noon all day, from 9 a.m. to 4 p.m.," Richardson says. "The light is very steep. I was hoping to use backlight as much as I could and then cover the characters for the remainder of the sequences. But by the time we got into this sequence with Bob and Joe, I realized that Martin wanted to cover both actors simultaneously to catch the improvisation. So we went with hard, direct light instead — backlight on Joe and hard top frontal light on Bob. The result was a far more saturated visual look, pulling and using the blues of the desert sky in strong contrast to the almost white, dry-lake feel of the landscape."

Though rife with such scenes of spontaneous verbal riffing, which viewers have come to expect from Scorsese films, *Casino* also offers many virtuosic, carefully staged sequences that will thrill film junkies. To convey the atmosphere and mechanics of a working casino, the filmmakers went to elaborate, almost clinical lengths. Scorsese's sharp eye for ambience led him to design several sequences that would capture the very essence of the gambler's environs. In addition to detailed close-up footage of the various casino games themselves (which Richardson compares to the intricate, dazzling billiards sequences in *The Color of Money*), the



director shrewdly included telling shots of incidental activity. "We were really interested in showing how things operated around the tables," Scorsese says. "To me, it was fascinating to show how everyone in a casino watches each

other; all of the people in charge have their eye on somebody else. The casino manager is watching the pit boss, the pit boss is watching the shift boss, the dealers are watching the players, and the electronic eye in the sky is watching *everybody*. It's a very paranoid environment — and rightly so! That idea fascinated me, so there are lots of shots of people staring at each other, checking each other out, and making sure that everything is going well at the tables. You do see a lot of detail on the tables, but it was more important to me to show the overall view of running a casino back in the Seventies. We show how the female hustlers work the room, and how the wiseguys protect certain people. This movie is all about the way people behave."

In one sophisticated setpiece, Rothstein demonstrates his eagle-eyed ability to spot a scam in progress. While scanning the room, the casino's king zeroes in on two seemingly unacquainted players sitting at two different blackjack tables, and soon determines that the pair are communicating with the help of electronic wires hidden beneath their clothing. "One guy taps on his leg, and the other guy receives the tapping on his leg," Scorsese explains. "The first guy is watching the hole card that the other guy's dealer is looking at. We pan back and forth, and you can see how it works."

Illustrating Scorsese's directorial brilliance, Richardson elaborates: "This particular cheating sequence was designed as a gradual reveal. The idea was to start from a wide point of view to a closer point of view to the first actor's space and then beneath his pant leg. The last shot in this progression is a bit like an X-ray; we did a cross-dissolve to reveal the device beneath his clothing. The entire sequence was carefully choreographed in terms of where the actors were, how they looked at each other, where Bob De Niro was, and so on."

More meticulous choreography was required for a documentary-like vignette in which the filmmakers track the path of the casino's cash profits. Shot with a Steadicam operated by the device's inventor, Garrett Brown, the se-

quence begins in a back room as a portion of the money is counted, boxed, and put into a bag. The shot then follows the bag through the main gambling area, out the casino's front doors, and into a cab that heads off toward the airport, where a plane will deliver it to the mob's coffers in Chicago. "On that particular sequence, I prayed, because we had to move from an interior location to an exterior location, through two lighting color temperatures," says Richardson. "I was highly dependent upon the exterior matching my interior. It was a nightmare. That was a fairly lengthy shot, but there was nothing in this film as long as the famous Steadicam shot in *GoodFellas*."

In fact, the cinematographer says that Scorsese generally avoided the use of Steadicam throughout the shoot, preferring instead to use more traditional dolly and crane moves to achieve similar perspectives. (Centrella attests that the Steadicam was used "only about a half-dozen times.") Elucidating his preference for classical camera techniques, Scorsese says, "I like the solidity of a conventional camera move; it's a solid frame that's moving. You have to be really careful when you're using a Steadicam. It's saved me many a time, but those situations have always been very carefully planned shots, such as the more well-known sequences in *GoodFellas* and *Raging Bull*. On this film, we had two long takes like that, but they weren't as long or intricate as the one in *GoodFellas*. The idea of the Steadicam worked well in those instances, but I try not to overuse it. When you *are* using it, you have to know precisely what you want to show the audience; it's as simple as that. The technology should not lead the way when you're telling a story. I feel that you really have to utilize the technology to serve what you want to show, and what you want to say with a scene or with a shot. Very often, you find yourself exploiting a piece of equipment that can do several different things, but then wind up cutting the scenes out of the picture because in the editing room you realize that you were just playing with a new toy."

Richardson observes, "What Martin doesn't like about the Steadicam is the way it moves on a set; he feels it has a sense that it's floating in a way that is not rigid — that its lines, particularly its horizontal lines, can adjust, however slightly, regardless of how good you are within [the move.] In general, we used the Steadicam for sequences that didn't require cutting — corridors, or walk areas that required us to get a character across a large space. In a situation like that we would be less prone to use a dolly because it would be almost impossible to hide the track."

Quite often, the filmmakers executed complicated shots with the help of a Pegasus crane. "We used that crane in every possible configuration, often in combination with dollies," confirms Centrella. "We would do intricate, complicated shots that most companies would do once or twice a movie, but in our case we often did them twice a day! Marty's not a big fan of hotheads, because he likes his operators close to the camera, and that's the way Bob likes to work as well. We only did one hot-head shot in the whole movie, even though it looks as if we were using them all the time."

One particularly difficult shot, part of a montage that reveals the deaths of various mob members and casino bosses, involved spinning the camera while simultaneously craning up and away from a pair of corpses on a walkway. To achieve the effect, the filmmakers used a Panatate (which Scorsese had utilized to great effect during the climactic sequences of *Cape Fear*) in combination with a boom arm attached to a Pegasus crane set at full extension on a Chapman dolly. "We were going to use a Technocrane for the move up, but the speed at which the arm retreated wasn't fast enough," Richardson recalls. "We started at about six feet and went up to over 20 feet. The arc we encountered disappeared in the diagonal of the frame at the tail end due to a corresponding zoom and the simultaneous rotation of the camera. Once an exact frame was nailed, it was difficult to make all of the elements come into synch on a physical

NORTHERN CALIFORNIA'S MATTE World once specialized in creating latent-image miniature/matte painting hybrid shots for such stylized productions as *Batman Returns* and *Bram Stoker's Dracula*. Now firmly entrenched in digital technology, Matte World Digital is blending old concepts with new techniques to stunningly recreate the Las Vegas strip of the 1970s for Martin Scorsese's *Casino*.

"Working with Scorsese was a real privilege," says Craig Barron, who supervised the visual effects that Matte World Digital created for the film. "I attribute the success of our half-dozen matte shots to the fact that Scorsese has such good people working with him, people who really invited us to be part of the creative process. *Casino*'s director of photography, Bob Richardson, was extremely helpful in making sure the VistaVision plates we shot were lit properly, so we had a good foundation to build upon. Production designer Dante Ferretti gave us line drawings establishing the elements and the compositions he wanted to see, and then we made production paintings and worked with him and Scorsese to develop a look. It was just a matter of us executing a good design and adding it to a well-photographed plate."

Las Vegas has changed significantly since the 1970s, so Scorsese asked Barron to recreate many of the classic landmarks that have sadly been torn down over the years. "We photographed some of the signs that were still in existence, like those for Caesar's Palace and the Flamingo, as plate elements," Barron recalls. "The rest we recreated either as 3-D CG elements or digital matte paintings."

Digital artist Morgan Trotter rebuilt the onion-topped Dunes Hotel sign as a 3-D computer object, replete with sparkling animated letters and that distinctive neon thermometer blazing through its center. By blending the 3-D sign with a 2-D digital painting of the Dunes hotel, Matte World Digital translated their technique of mixing miniatures and mattes, à la Coppola's *Dracula* and *Batman Returns*, into the computer realm.

Visualizing a Vintage Vegas



Matte World Digital even created the Tangiers, the fictional casino of the film's title, by augmenting Howard Hughes' still-standing Landmark Casino. "The production rented the Landmark, refurbished the front entrance and built the base that the Tangiers marquis would stand on. We built the marquis and sign as 3-D CG objects, as well as a big Sultan's turban over The Landmark's existing half-domed porte de coachier. The turban feature rose up over the structure, giving the casino the sort of *Arabian Nights* or *Casablanca* feel Scorsese wanted."

But digitally recreating the glitz of the Vegas strip caused some technical headaches as well. Ray-tracing is traditionally used to render a path of light through a digital environment, but it's not very good at simulating the effect of bounce lighting. "And the Las Vegas strip at night is all about bounce light," Barron confirms. "We used a new renderer that has never been used on a film before, which uses radiosity algorithms instead of ray-tracing to calculate the bounce light in a scene. The software was designed by Lightscape so that architects could preview how their buildings might affect a given environment. We worked with Lightscape to create the tools necessary to apply this technique to film. While ray-tracing just uses an arbitrary wave to enhance the ambient light level, when we're dealing with architectural objects like buildings at night, radiosity al-

gorithms accurately render the energy dissipated. Radiosity is not a superior alternative to ray-tracing, but a complementary one. In some scenes, we actually used a little of both; we first did our radiosity render to calculate all the bounce light, then we ray-traced over that to create direct light sources and specular reflections."

But not every element was fabricated in the computer. Matte virtuoso Chris Evans created some traditional matte paintings on glass to transplant the gas station hideout of the East Coast gang to an industrial town in a couple shots. "Chris, with the help of digital compositor Paul Rivera, composited those traditional elements with his digital matte paintings on the computer," Barron explains.

Casino was shot in Super 35, which meant that any compositing done would have to go another generation for the Super 35 process. "We wanted to make all our images as pristine as possible so they wouldn't fall apart," Barron says, "so we worked in Cineon's 10-bit VistaVision format (100 megabytes per frame), which is the highest resolution possible for film capture. Most of the industry works in 8-bit, but I think the quality of those shots are a little lacking when intercut with original production footage. Even though the size of our images meant they took more time to render at that resolution, we wanted our effects to blend seamlessly into Scorsese's film."

— Ron Magid

To create the view of period Las Vegas signs outside the windows in this scene, digital matte painting was combined with radiosity techniques.

Selective lighting emphasizes the brutal violence of gunplay in a barroom massacre. This scene was covered by two cameras — one set at a wide angle and the other at a medium-tight angle — set up at approximately the same perspective. The action was also recorded at two speeds, normal and slightly slower, to give Scorsese options in the editing room. Says the director, “When you play the action of the violence against the elegance of the camera move [or in this case, a special technique,] that’s where you get your tension.”



level. We ended up doing it a number of times, maybe 15, but we did finally get one that Martin was happy with. In the end, we couldn't do it electronically, so I wound up doing the whirl manually with the Panatate. I would spin it, but I had to stop it at an exact point without looking through the camera eyepiece. Because of the angle at which the camera was set for the tilt, I couldn't get to position one on the eyepiece and turn my head in a 360-degree move."

The Panatate was used again for a nighttime scene in which Pesci's character is seen pummeling a gambling debtor in an alleyway. "The camera had to race in at ground level from 40 feet away, and Martin wanted it in a very particular position when we started the shot," Richardson says. "As opposed to having a horizontal frame, it was more of a vertical frame. The image had to move off that vertical starting position into a close-up, and the camera did a full revolution on the way in. To achieve it, we combined the Panatate with a fast dolly move.

"We did a number of similarly complicated moves elsewhere on the picture — a snap move on a dead man in the street as his chalk outline is being laid down, an extremely fast move in on a casino boss as he's shot. In general, Martin does not like to tie in a zoom with these very fast moves. He likes the quality of the move to be that of a camera move, and not hidden within the optics of the lens changing millimeters. He'll set a

millimeter he prefers for the tail of the shot, and if it's acceptable, you'll make that fast move straight on with a dolly, without an adjustment to the zoom. You just do your best to lock it down so you can start and end the shot with the grip working at full speed. Fortunately, the dolly grip on *Casino* was one of the best in the business, Dave Merrill, who's now key gripping. It was my first experience with him, and he was quite phenomenal, especially in working out some of the problems with the crane."

Richardson's crew members proved their ingenuity throughout the picture. To help the cinematographer achieve complete flexibility on the Chapman Hybrid dolly, they came up with a device they dubbed the "Bob seat." Richardson explains, "When you sit on a dolly, the hydraulic arm moves up and down. It works at a diagonal, so when you're making a certain shot where you have to move 180 degrees around the post, it can be very difficult, because you have to step over the arm; it's especially tough when you're making a boom up. The 'Bob seat' rotates and allows you to sit dead-center post, so you're always moving at the same perspective as the eyepiece. You can swivel 360 degrees from center post without ever having to adjust your body. I work with a fluid head rather than a gear head, simply because I'm more proficient at it, so I'm highly dependent upon a sense of balance. Our seat is on a series of ball bearings, and it rotates around the fluid

head. The Panther dolly is based on the same design, but it doesn't allow you to start at a low enough height. The Hybrid and Fisher dollies give you greater flexibility at the low mark and high mark, so we took the basic concept from the Panther and applied it to the Hybrid."

In addition to unusual camera moves, the filmmakers also executed a number of speed changes during shots to emphasize crucial moments. Richardson relates, "We were using a Panavision Platinum in those situations, and we had two options on speed control: one was set more toward the iris and one was for the shutter control. Both of them have their limitations. With the Panavision T-stop system, if you make too rapid an adjustment, the gearing for the T-stop lags behind the speed, resulting in an oscillating exposure. If you're going to work the shutter system, you end up with a different quality to the look in terms of where the shutter is sitting — whether it's sitting at 180 degrees or 90 or whatever. It alters the way in which the viewer sees the action, i.e. strobe.

"We ran into lag on two separate occasions. In one, De Niro's character comes to a door and is served with a warrant, and the camera does a fast rush-in on him. The camera had to make an adjustment from slow motion to a normal motion and speed, something like 48fps to 24. But the speed at which we made the shift was so fast that the T-stop itself couldn't accommodate the movement, and we weren't able to judge it till later. The same thing happened later that same day when we did a series of very fast moves with the dolly, moving in on a pair of bank-vault keys as Sharon rushes around a house looking for them."

Given its scope and technical complexity, *Casino* certainly ranks as one of Scorsese's most ambitious films to date. According to every member of the crew, the director's approach to the material was uniquely inspired, and confirmed his status as one of the world's most creative filmmakers. Says Richardson, "Quite simply, Martin has one of the most brilliant minds I've ever encountered. I



PHILIPPE ROUSSELOT AFC ON FILM

"Cinematography is frequently compared to painting. I'm convinced that isn't accurate, because I've tried to paint. Painters work alone in a still and quiet world. Cinematography is collaborative. The look of a feature film isn't something you think up. It's something you dream up. There are fewer boundaries today. New technology is changing the way we work. It can even change our dreams. I dreamed for a long time about lighting a complex scene with one light. When I finally did it, I'm not sure the scene looked any better, but I was very pleased with myself that day. It's always a struggle matching your theories to the realities of the moment of photography. Your most elaborate plans are often shattered when you come on the set and something is different from what you expected. You have to make adjustments. Images don't work like words. It's a completely different logic. The way you manipulate images is very important in the making of a film. You have to do so with responsibility and when you say the word responsibility, ethics are not far behind. I don't want to sound pretentious. I'm not a philosopher, nor can I develop a theory of filmmaking. It takes a lifetime. Ask me again in 10 or 20 years."

Philippe

Philippe Rousselot earned an Oscar® for *A River Runs Through It*. He was also nominated for Academy Awards for *Hope and Glory* and *Henry and June*. His body of work includes *Dangerous Liaisons*, *The Bear*, *Diva*, *Therese*, *The Emerald Forest*, *The Miracle*, *Interview With The Vampire* and *Mary Reilly*.



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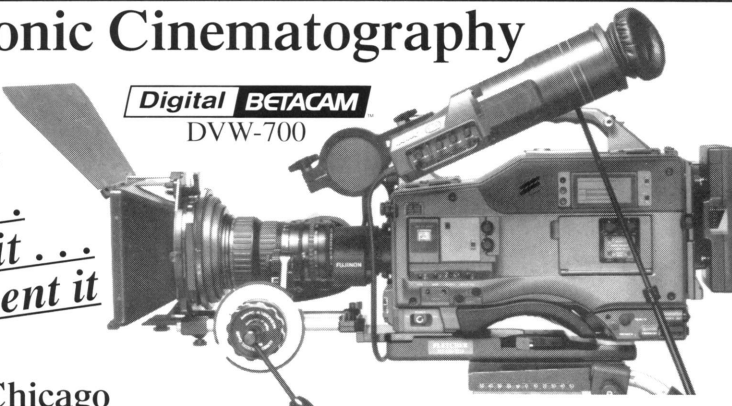
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In A Supporting Role

think I could go to extraordinary places if we continued to work together. By the end of the film, I felt we were very much in sync. But Martin has a very long relationship with Michael Ballhaus, and I'm sure they'll continue that relationship in the future."

Gaffer Ian Kincaid was equally impressed with Scorsese's cinematic cerebration. In a fitting summation, he recalls the precise moment when he realized that he was working with a truly original thinker: "One night, Bob, Marty and Chris and I went out to set up a shot for the next night, in which De Niro and Pesci would be driving down the Vegas Strip in this big Cadillac. Chris Centrella and I were sitting in the car in the Riviera parking lot, trying to figure out the camera angle and where we were going to put the lights. It was the first time we'd really had the chance to talk to Marty directly and ask him questions. He and Bob walked around the car for a bit, and we were listening to them as we sat there. Finally, Marty came over and said to us, 'Well guys, I'm not really sure where the camera should be, but do you remember the Gemini space flights and how the camera was placed on those? I really want that sense of otherworldliness, of being in outer space; I want it to feel as if these guys are all alone in their own universe.'

"Chris and I just looked at each other in amazement, because we both instantly understood what he wanted. He wanted a wide angle, and he wanted these guys to be isolated; he wanted the reflections of Vegas in the window, and the feeling that the characters were far away from the real world. He didn't want the standard cop-show, *Adam 12*, camera-on-the-hood look. Like everyone else on the film, I'd read all the books about Marty and watched all of his movies, but I really didn't get a sense of the kind of director he really is until I got to hear him discuss things firsthand. That's when I started to understand that he's in his own world, and that he's a total genius."

UPON COMPLETING THE FINAL TIMING process on *Showgirls*, Dutch director Paul Verhoeven's controversial look at Las Vegas' steamy dance shows, cinematographer Jost Vacano, ASC took a brief break to join Russell Carpenter, ASC for a screening of several sequences and an interview focusing on the film's spectacular depiction of the glitzy stage productions.

Born in Munich, Germany, Vacano began his collaborations with Verhoeven on the Dutch Resistance drama *Soldier of Orange*, joining him again for the controversial coming-of-age film *Spetters*, as well as the hugely successful science-fiction pictures *RoboCop* and *Total Recall*. The cinematographer first rose to prominence in the U.S. with his Oscar nomination for *Das Boot*, a bleak and terrifying look at submarine warfare, and his diverse credits also include *The Neverending*

The Show is the Thing

Interview by Russell Carpenter, ASC,
edited by David E. Williams

Story, *The Lost Honor of Katharina Blum*, *The 21 Hours of Munich*, *52 Pick-Up*, *Rocket Gibraltar*, *Untamed Heart*, and a *Tales from the Crypt* segment directed by Arnold Schwarzenegger. His next picture will be Verhoeven's *Starship Troopers*, based on the classic sci-fi novel by Robert Heinlein.

Russell Carpenter's latest picture, *The Indian in the Cupboard*, was covered in AC's August issue, while his other credits include

True Lies, *The Lady in White*, *The Lawnmower Man*, *Hard Target* and *Solar Crisis*.

The following text covers key points of the pair's *Showgirls* discussion, which took place recently at the ASC Clubhouse in Hollywood.

Russell Carpenter: I feel that any lighting approach springs from a collaboration with the director in terms of the emotional feeling of the story and how you incorporate that into the technical reality of your set. What approach did you and Paul Verhoeven want to take here? The film has a tawdry feel in some sections, but is quite slick and glamorous in others.

Jost Vacano: Well, *Showgirls* is really told in two parts: from within the world of these stage shows, which attracts this young woman who wants to become a dancer, and from the one she finds herself in before she gets into the show. Vegas is about glamour, lights and color — and money



Top: Dancers embrace in the "Avenging Angel" number, which Vacano describes as an "ice-cold, S&M thing." In direct contrast is the film's opening show, "Goddess" (below), which bathes in high-energy warmth. To achieve the different looks on a single location, Vacano utilized computer-controlled stage lighting in combination with traditional motion picture fixtures for maximum flexibility.

As seen in "SHOWGIRLS!"

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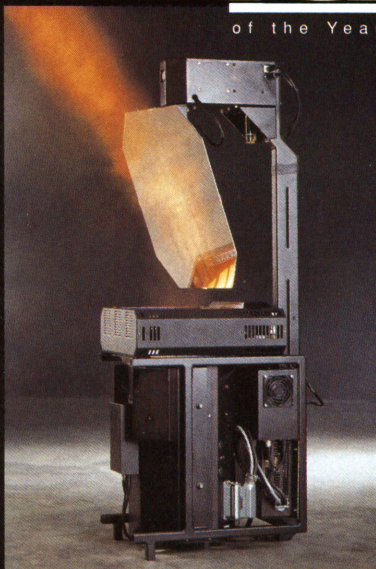
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— but it is also sleazy. So the picture was lit for these two worlds. We had a much different approach to this at the beginning of the production than how it turned out, but my experience is that whenever you start thinking far in advance, it doesn't always work. We started with the idea that the film would be very sleazy, very rough — like a cheap B-movie. This was one of the reasons to go with Super 35: so it would be a little bit gritty. It was also the reason we used 5298 — for a bit of grain. I would have normally gone with 5293, the slowest possible stock I could have used in the situation.

RC: Did you find that your impulses to finesse things — to make them look the best you can for professional reasons — stood in the way of that? You must have had shots where you said, 'This is too rough.'

JV: I think anyone would react the same way when told 'Oh, just make it bumpy, make mistakes.' As professionals, we have the tendency to do things the best we can — sometimes better than it should be. We started the rough way, but after a few days we gradually drifted away from that approach. What looks sleazy or cheap? Should it be dark or bright in a strip-club? First I went for a realistic, dark look and the director felt it looked too elegant. So we went instead with very bright, colorful lighting. Normally, I'm not so into colored lighting — just to warm something up or cool it down perhaps — but in this film everything is colored. Of course on stage you can do anything with color because it all looks normal. And the lights are part of the set, so you don't have to hide them. What's interesting too is that most of the rest of the film — the more realistic, off-stage portions — were shot almost entirely with Kino Flos, especially their new Wall-O-Lights, and a completely different, soft-lighting technique. For these scenes, we also shot predominately with Larry McConkey's 'dancing' Steadicam — since it's a film about dancing.

RC: The film is marked by several hyperkinetic, extremely colorful treatments of light with several motifs for the stage show

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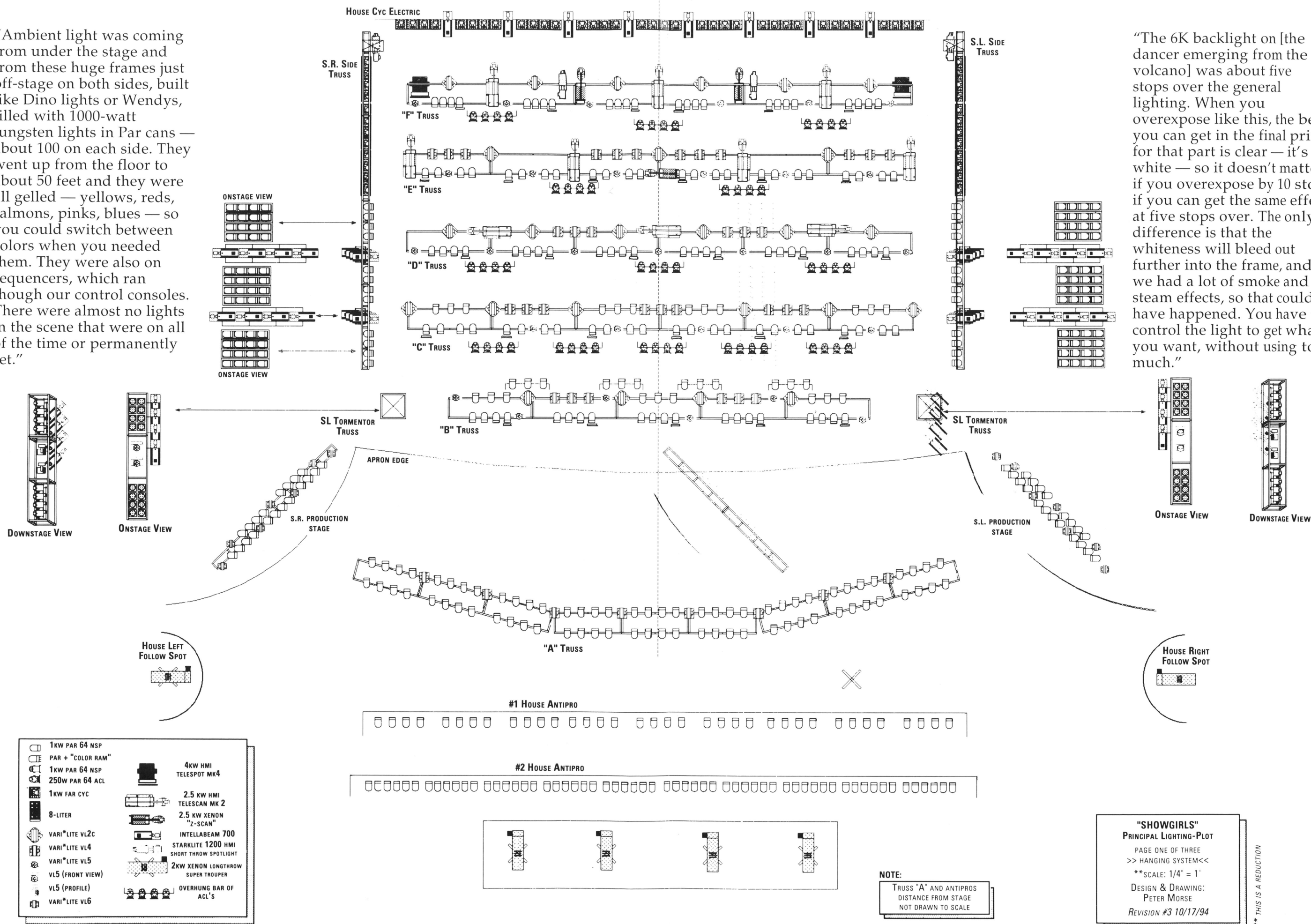
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"Ambient light was coming from under the stage and from these huge frames just off-stage on both sides, built like Dino lights or Wendys, filled with 1000-watt tungsten lights in Par cans — about 100 on each side. They went up from the floor to about 50 feet and they were all gelled — yellows, reds, salmons, pinks, blues — so you could switch between colors when you needed them. They were also on sequencers, which ran through our control consoles. There were almost no lights in the scene that were on all of the time or permanently set."



"The 6K backlight on [the dancer emerging from the volcano] was about five stops over the general lighting. When you overexpose like this, the best you can get in the final print for that part is clear — it's white — so it doesn't matter if you overexpose by 10 stops if you can get the same effect at five stops over. The only difference is that the whiteness will bleed out further into the frame, and we had a lot of smoke and steam effects, so that could have happened. You have to control the light to get what you want, without using too much."

sequences. I'd like to get a feel for how you technically pulled them off.

JV: There are three dance numbers, all filmed on a rented stage at the Horizon in Lake Tahoe, and there were several different kinds of lighting used in these sequences: stage lighting, computer-controlled lighting and standard motion picture lighting. I needed help with the computer-controlled lighting — they are complex instruments and have to be handled differently — so we hired a show-lighting expert, Peter Morse. On that one stage we had about 1,000 lights, with five guys controlling them at small consoles. There were many kinds of computerized lights, which were programmed to more than 100 different music cues. To begin, I told Peter about the dance story, about prominent colors, the necessary lighting effects, their timing and movement. Then he started designing the basic layout, rigging and programming by himself while I was still shooting in Vegas.

RC: I see more and more cinematographers using this remote-controlled theatrical lighting — for example, Stephen Goldblatt's work on *Batman Forever*. These rigs seem useful for situations where you don't want to have a light operator stranded in the distance or just have too many lights to coordinate. What kind of research did you do to achieve the look for the stage shows? Did you decide to just cook something up out of your heads or did you go see some shows to see what they do and extend on that?

JV: I looked at several dance places and clubs in Vegas, but there were no real shows like this. So we went from scratch, starting with what the content of our three dance numbers would be. The first, 'Goddess,' has this volcanic landscape and is more romantic, golden and warm; the next, 'Avenging Angel,' has the girls in these leather costumes and motorcycles and is sort of an ice-cold, S&M thing; and the last, 'Bliss,' is a very light cathedral de-

sign in blue and purple. But the lighting design we came up with would have to basically work for all three numbers — each with new programming, of course — as they were all shot on the same stage with only limited access to the lights after the set was built in. It took about a week to redress the set for each different part of show, so we had to find other things to shoot between the dance numbers so the lighting could be done correctly.

RC: That's a very important thing. You had to make the decision to say, 'This isn't ready to shoot' and you had the support from the director to get the time you needed. Did you shoot tests of these setups? I take one look at the 'Goddess' scene and want to say, 'I think I'm going to go through here and shoot still or movie tests of the location to see where the practical lighting comes most alive.'

JV: Yes, because unless you do, you are lost. While Peter Morse and his crew was setting up at the Horizon, we were shooting

in Las Vegas. So I would fly up to Tahoe to see their progress every week. I would also send a crew over to shoot tests, which we screened at a local theater. Unfortunately, the lamp in the projector was just a 1000-watt tungsten bulb — so everything was brown, especially with all these warm colors we were using. But in any shoot there is a moment of panic. Even worse, Anette Haellmigk, our second-unit cinematographer, had to shoot lighting tests of this show. But how could she do this without the dancers, who were still rehearsing back in Los Angeles? So we were shooting this amazing stage and lighting with just maybe a few crew people standing in there so it wouldn't be completely empty. Fortunately, we had videotapes of their rehearsals which we could use to guide our pre-lighting.

RC: Your stop must have been way, way open for the stage numbers.

JV: Not so much. In shooting Super 35 you have to have a good healthy negative for the optical blow-up, so I was at about an f4, but the 5298 gave me that range. My printer lights were very high, in the mid-40s. It helps to have a strong negative also, because otherwise you are losing color saturation. So with a film like this, with all of its colors, we need an almost overexposed negative.

RC: Did you have any filtration to enhance the lights?

JV: In general I used a quarter ProMist, depending on the focal length of the lens. Sometimes is was an eighth or a half. When you shoot into the lights it gives you a nice halo, so you get more of a feeling of the light. But I also like a little filtration because it takes the edge off the too-sharp lenses we have these days. We used Arri BL4s and Zeiss lenses, partly because we needed so many cameras and didn't want availability or financial problems.

RC: Let's talk specifically about 'Goddess' and how the lighting was developed for it.

JV: In this first number there are volcanoes, a lava stream running through the stage and pyrotechnic effects all over the place — it's the end of the world. So the dance reflects that, and at one moment, from out of a volcano, the star appears to save everyone.

RC: How did you light her

for that reveal to make her stand out amidst all this chaos of light and choreography? It was beautifully lit.

JV: Well, before she comes out, the whole scene dims down and is mostly lit from underneath, through the stage floor, which was designed to look like a lava flow, with glowing red cracks. There were 300 or so lights under there — anything we could get — fitting in a very small space. A lot of them were mini-brute type lights, which were very hot, and everything was gelled very dark red. So at the appropriate moment, one of the volcanoes explodes with a compressed air device and real steam — cooled by liquid nitrogen so it wouldn't dissipate too fast — and the actress is lifted through the set on a little elevator. We had a lot of 9-lights inside the volcano and then a 6K HMI was directed up just behind her to give a strong backlight from underneath. At the same time, we had two manual HMI follow-spots on her from nests in the right and left back corners of the stage, so she was rimmed from three angles. She was then slowly revealed in the front with another HMI follow-spot placed behind the audience on the other side of the room, which were dimmed up — you just open the iris. We also had some spots from the sides, but they were very old carbon arcs and were not reliable, so they were used more for effect lighting. If they failed, it didn't matter so much.

RC: How did you deal with the different color temperatures?

JV: Well, what you normally do when shooting a film is think about matching lights and temperature, but in this situation I just forgot about it. I used them as they were; an unfiltered HMI became a blue spot. However, the HMI follow-spots on the lead dancer were gelled, which gave her the only white light on the stage and made her stand out even more.

RC: Now there is also a huge framework above the stage. How many trusses did you have for the computerized lighting?

JV: I had six above for the stage and then another two or three above the auditorium, for steep front lights. So here we had the Xescans, which are xenon-based; Vari-Lites, Telebeams and Telescans, all HMI-based; and many others, which we got from the Obie Company. These

are all projection-spot type lights that are not normally used in making movies. Usually when you need a moving light, you have an electrician sitting up there doing it. But these lights have been developed specially for stage work and rock concerts. And with most of them, the light itself is static and in the front there is a small motorized mirror, which directs the beam, so they have a tremendous range in all directions. Inside, they have highly sophisticated dichroic color changers, so you can mix hundreds of colors, like the timing printer in the lab; it's the same principal. They also have an iris to pinpoint a spot, diffusers, and rotating gobos so you can project all kinds of moving patterns. They also have high-speed shutters which can create nice lightning effects. The strongest of them, the Telescan Mark IV, with a 2500-watt HMI bulb, has tremendous output and would be useful for any film work. But these lights are priced accordingly, of course. Since we used 50 of these moving-mirror lights — some on the floor, some projecting different shades and colors on the cyc, but mostly from trusses overhead — this was the highest lighting bill I have ever had. The rigging for all this was very complicated for Peter Morse, and his work had to be completely done before the art department could come in to build the sets, because access would be very limited afterwards.

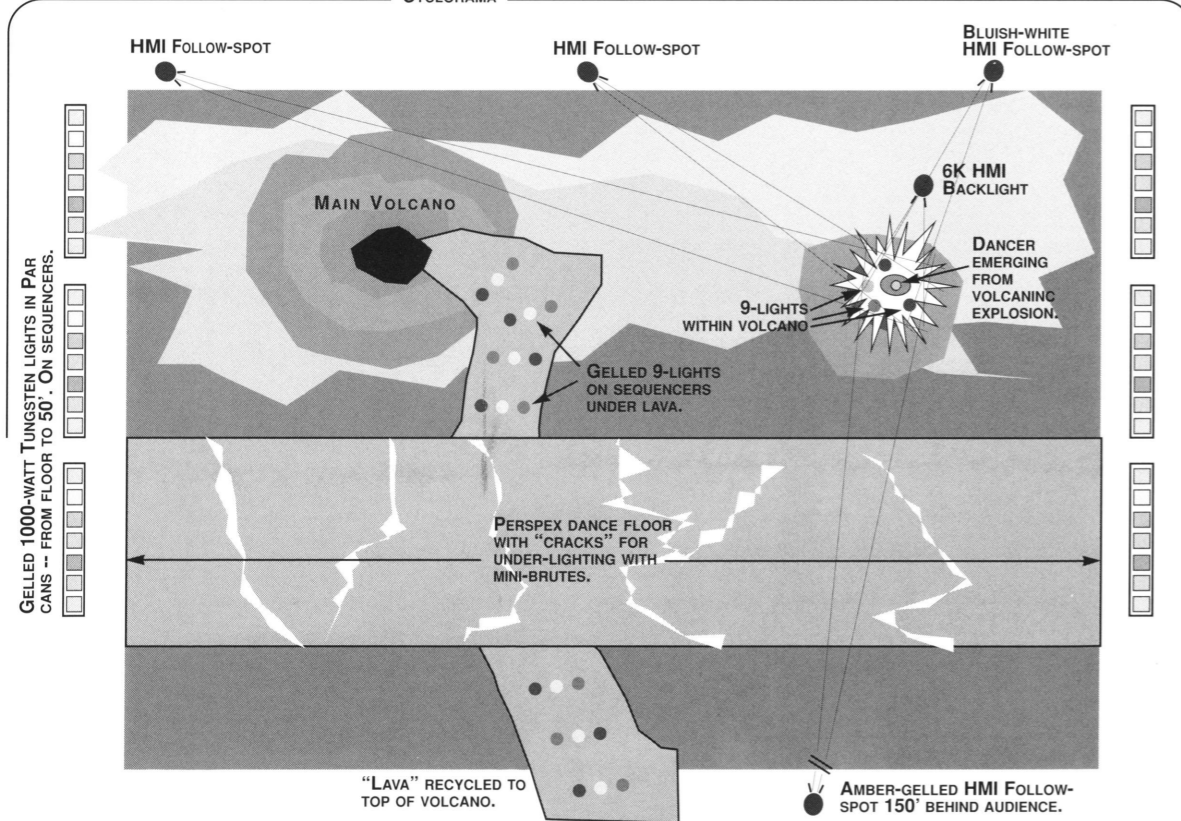
RC: How did you determine what your exposure should be for some of these effects with the top lights? You surely must have just done it by eye, on an intuitive level.

JV: Well, with this many lights, you really have no chance to get a reliable reading. At different times or places, you can find 100 different readings between plus or minus 4 stops. So, hopefully, what the eye likes, the film will like as well. So you just have to get an impression of what looks good.

RC: Did you study traditional or contemporary dance films for some kind of inspiration for doing this scene?

JV: Not at all. A lot of people do that, but I always have the feeling that I will be guided into something that has been done before, away from something I might otherwise do. You shouldn't be inspired by the result of somebody else's inspiration.

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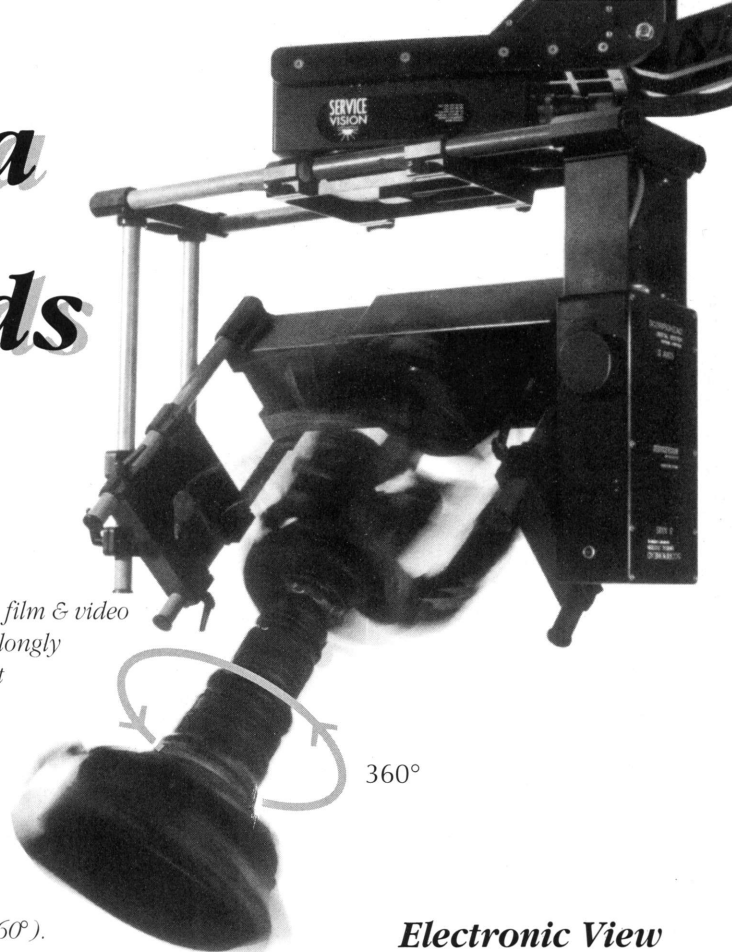
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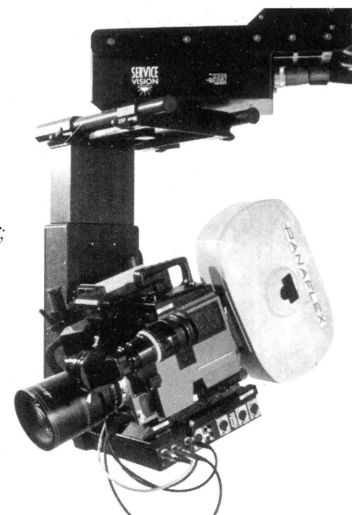
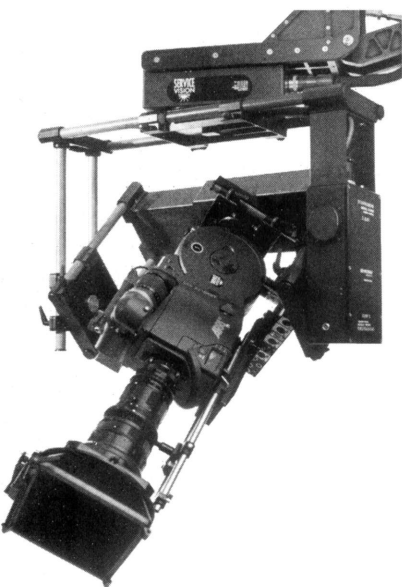


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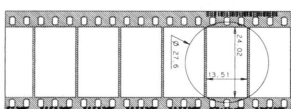
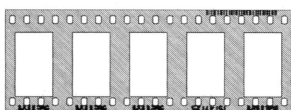
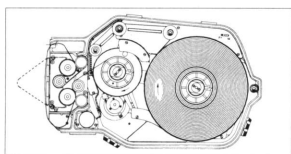
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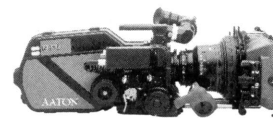
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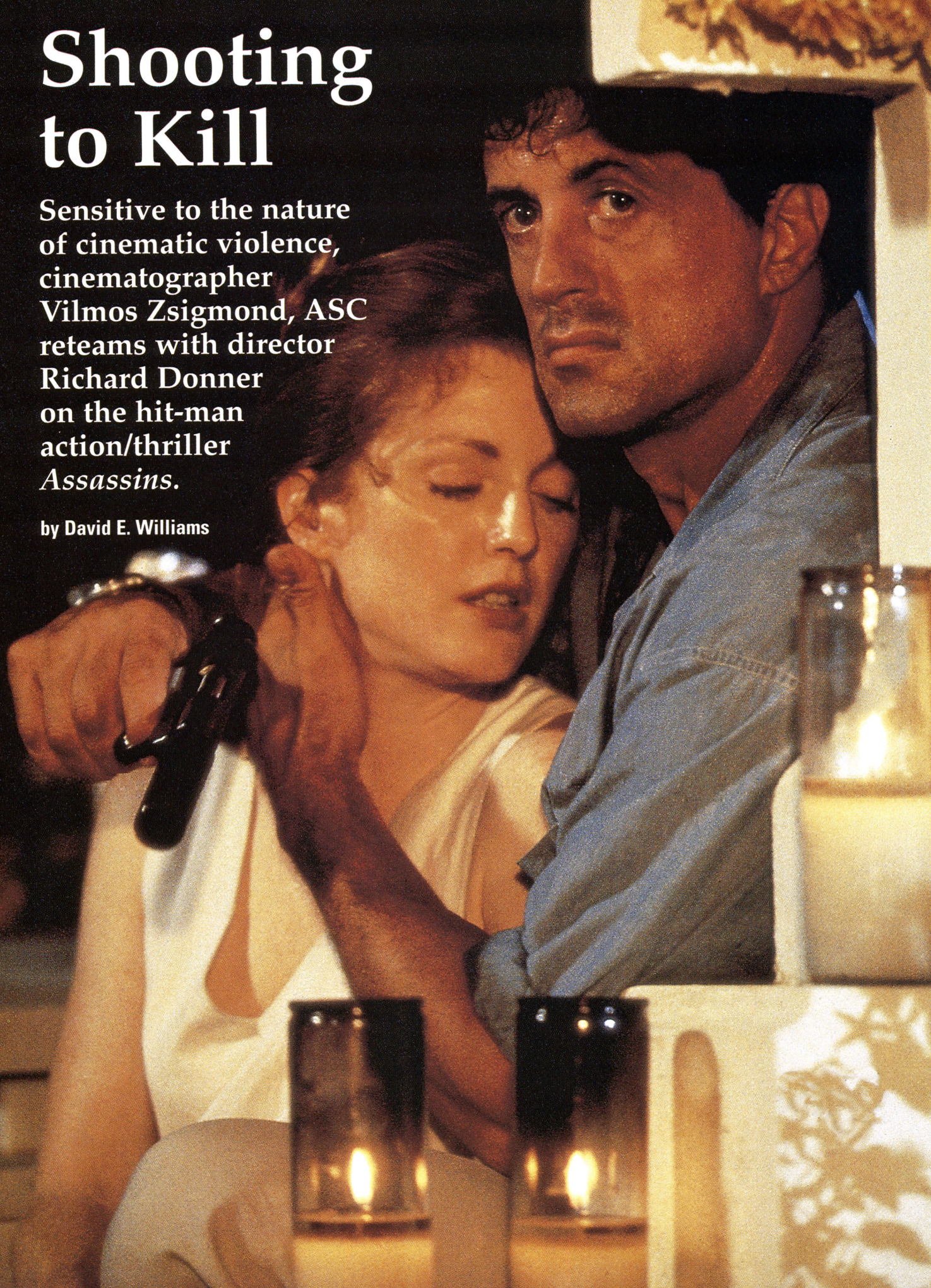
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Shooting to Kill

Sensitive to the nature of cinematic violence, cinematographer Vilmos Zsigmond, ASC reteams with director Richard Donner on the hit-man action/thriller *Assassins*.

by David E. Williams

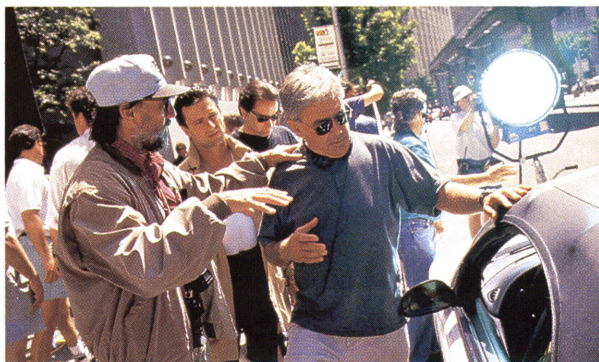


EVOLVING FROM THE WESTERN'S lone shootists and film noir's pistol-packing thug archetypes, the modern character of the professional hit-man has been menacingly depicted in such films as *The Killers* (1964), *The Mechanic* (1972) and *The Killer* (1989). The methodical gunmen in these pictures were respectively played by Lee Marvin, Charles Bronson and Chow Yun-Fat as tough guys to the last breath. Successors to that lineage are the hired executioners portrayed by co-stars Sylvester Stallone and Antonio Banderas in *Assassins*, the second collaboration between cinematographer Vilmos Zsigmond, ASC and director Richard Donner, who previously paired last year for the satiric big-screen adaptation of *Maverick*. But while those previous films reveled in their graphic depictions of intricately-plotted murder, this recently-completed project, shot largely on location in Puerto Rico and Seattle, had to offer far more than mayhem to interest the noted Hungarian-born director of photography.

"I really hate violence in movies and if I thought *Assassins* was just a violent film, I would not have done it — regardless of Dick Donner or the actors involved," Zsigmond fervently states when

asked how he first reacted to the film's script. "Of course, you can read a script any way you want to, but I just can't stand it when movies have to dwell on violence. So I don't do those kinds of movies."

Evidence of that is found in even the most cursory tour through Zsigmond's major credits, which include *The Hired Hand*, *McCabe & Mrs. Miller*, *Images*, *The Long Goodbye*, *Scarecrow*, *The Sugarland Express*, *Close Encounters of the Third Kind* (which earned him an Oscar), *The Last Waltz*, *The Rose*,



Flesh and Blood, *Heaven's Gate*, *Blow Out*, *The River*, *The Witches of Eastwick*, *The Two Jakes*, *The Bonfire of the Vanities*, *Stalin* (which earned him an ASC Award), *Sliver* and *Intersection*.

But the cinematographer's position on the violence issue isn't surprising to anyone familiar with his personal history. As aspiring filmmakers and graduates of the State Academy of Motion Picture and Theater Arts in Budapest, he and fellow countryman Laszlo Kovacs, ASC bore witness to and

photographed the brutal 1956 Soviet invasion of Hungary. They then escaped to the West with 30,000 feet of documentary evidence against oppression and settled in Hollywood to find their careers — beginning with a difficult establishing period in the Sixties, when both men were compelled to shoot numerous no-budget films for the sake of making contacts and gaining valuable experience. So like others who have personally experienced violence and its exploitation, Zsigmond can't condone its cheapening as escapism fare.

Interestingly, this stance is that of the same man who lent his talents to such harrowing pictures as *The Deer Hunter* and *Deliverance*, whose burning images of torture and rape not only scarred audiences but became focal points of public debate. Yet, as Zsigmond points out, these forays into violence opted to examine the issue differently than most other films. "When you are making a film about war, like *The Deer Hunter*," he explains, "showing violence is necessary to be realistic, to make people see how horrible and cruel war is — and what it does to people. It is the tragedy of inhumanity. When a young person sees a movie like *The Deer Hunter*, their reaction is not to pick up a gun and kill someone else — it doesn't provoke people like that. In the case of *Deliverance*, we have these people who are on an adventure; instead it turns into a nightmare. And if you look at the way violence is used in

Opposite: Zsigmond's "color noir" approach for *Assassins* envelops co-stars Sylvester Stallone and Julianne Moore during a cemetery shoot-out filmed in San Juan, Puerto Rico. Seen at dusk, the location (below) was primarily lit with crane-mounted Condors (out of frame) gelled with 1/2 CTO and shot wide open at f2.8 on 5296. Additional candlelight-like warmth was added by the lab. To ensure the desired effect, Zsigmond (at left with director Donner) shot a grey-scale reference for the color timer, adding blue to denote the shift in color he required.





Above: Exteriors for the hotel shoot-out sequence were done on location in Puerto Rico while interiors were filmed inside a three-story practical set built in Seattle (below). Matching light proved critical for Zsigmond, who rigged the hotel with a permanent array of lights that could be quickly altered to provide daytime, dusk and nighttime effects.

Deliverance, it doesn't teach you to kill, but teaches the horrible cost of killing. But there is what I call 'bad violence' in films today that teaches people how to accept it as a way of life."

Regarding his role as a cinematographer, Zsigmond reflects, "But I can have a lot of influence on how the violence is depicted. I can just refuse to do a picture, which might make a director reconsider what he is doing. Secondly, I can ask how it is going to be done and *why*. There are different ways to shoot violence: either graphically with a lot of bullet holes and blood, or artistically, within shadows. To me, that effect is even more horrendous, because of the way the viewer's imagination creates more horrible things than we could ever show. So when Dick and I started discussing *Assassins*, this is what we talked about — and he had the same feelings as I did, so it wasn't a question."

Zsigmond adds, "We do have a lot of shooting in this picture, but we don't *dwell* on it. We don't *bathe* in it. You hear the pop of a silencer, a whistle, and the rest is in darkness."

Having made his point, Zsigmond opens up about the experience of making *Assassins* and his relationship with Donner, with



whom he had wanted to do a movie since best friend Kovacs shot several pictures for the director. But the two men had been frustrated by luck and timing. The cin-

ematographer remembers, "When Dick did *Radio Flyer*, he sent me a copy of the script with a bottle of wine and a handkerchief. There was also a note that said, 'The wine is to set you into the mood for the script and the handkerchief is for after you have read it — for the tears in your eyes.' I already had a picture and had to turn him down, but we finally got together on *Maverick*."

"Donner is a very interesting director because he's an *improviser*. I don't know what he does at night, but he doesn't bring storyboards or a shot list to the set. But when the actors show up and he does a rehearsal, then you see everything take shape. So he trusts and gives me the initiative to suggest things and we work out the camera together. Donner used to be a cinematographer himself, so he amazes me sometimes — he has

ideas I should have thought of.

"But Donner isn't the kind of director who dictates the lighting and the camera, which is like having someone else do your job. I hear that Kubrick lights his sets himself — he even puts the bulbs in.

"But *Maverick* was a very simple movie compared to *Assassins*."

Asked about Donner's approach on this film, Zsigmond responds, "Dick is primarily an action director, considering the *Lethal Weapon* films, but he also knows character and story. He is very experimental with actors.

Most action movies are not that interesting to me personally because the characters are not so important. In a good film, the characters will change over time, dur-

ing the course of the story. So when I discussed *Assassins* with Dick, he said, 'That is exactly what we will be doing here. From the outside this is an action movie, but it's basically a story about people.' Sylvester Stallone is known for doing macho roles without much talk, but *Assassins* goes back to the films from his earlier career, like *Rocky*.

"*Assassins* is also different from Stallone's films like *The Specialist* or *Demolition Man*, where they just blow up five things in five minutes. The action revolves around the characters instead of the other way around, and there's a lot of interplay between them. Stallone and Antonio Banderas have a lot of scenes together, while in most action movies, characters don't have time for that. They're too busy."

Yet the characters in *Assassins* are busy too, as a tired-of-killing veteran hit-man (Stallone) is targeted by an up-and-comer (Banderas, recently seen in *Desperado*) bent on terminating the top gun — his only means of career advancement. Added to this deadly dynamic is a young woman Stallone's character had been contracted to kill (Julianne Moore), but who unexpectedly aids him in outwitting his adversary.

"This was really a new experience for me, to shoot an action film," Zsigmond enthuses. "The last one I did was *Deliverance*, but that was more of a character study. There was some physical stuff, but nothing like *Assassins*. The nicest thing about this film, though, was that Dick and I wanted to make a very stylized movie, because it gets to the point where one action movie begins to look like another. We wanted to almost make an artistic film within this genre. And for that reason, it was easy to form a style for this movie with Dick. I always light in color as if I were lighting black-and-white, which is how I learned back at school in Hungary. Lighting is the most important thing on any film; it is the difference in something that could be considered artistic. So our idea on *Assassins* was to go further with that approach.

"Action directors generally use a lot of close-ups to tell the

story with reactions and faces. So you also have to be more careful with the lighting — you have these highly-paid actors and they want to look good — but you also can't be boring. That's why I didn't use the usual soft-lighting techniques that are so prominent today — following people around with Chinese lanterns. It's an easy way to do it, but I also think it's lazy and dull. Donner and I wanted something different, to really *light* it like a classic Hollywood film and get an exaggerated, but realistic, sense of light. Stanley Cortez [ASC], for example, was a brilliant master of lighting black-and-white film in an intriguing yet realistic way. But we lost that tradition when color films became more popular, and pictures are still becoming more bland. With the great stocks and lenses we have today we can make things more realistic, but the artistry is gone. We forgot it while trying to be *real*, which audiences think is boring. So on *Assassins*, we wanted to go back to that classic style; to create a film noir look in color.

"But you have to be careful when you do a stylized movie to make sure you are being artistic as opposed to just using gimmicks, like they often do in rock videos. Unfortunately, some movie people think audiences just love this kind of style and they will want you to use it in a movie. I *hate* that!"

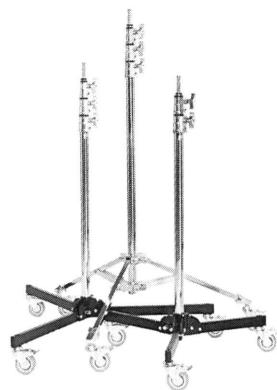
Continuing another tradition, Zsigmond again employed Panavision cameras (GIIIs and a Panastar) for the *Assassins* shoot. But one piece of his package made a special impression: "This new Primo zoom, the 11:1 24-275mm, is a great lens," he notes. "It's a T2.8 and as sharp as anything. You hardly have to change lenses through a picture because it gives you such a variety of lengths." And because Zsigmond exposes at maximum aperture, the 11:1 offered extra flexibility, especially when more stops would have to be pulled for high-speed photography. "I like the freedom a zoom lens gives me, and it ultimately saves time. Unfortunately, some people are prejudiced against them because of how they were abused when they were first introduced. And to actually zoom within a shot is fine if you are using it for an ar-

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Rays of sunlight penetrate the hotel, illuminating the assassin lurking within (Antonio Banderas). 4K Xenon spots provided the key shafts while HMIs lit up a surrounding cyc of San Juan. Zsigmond added a light smoke to "create those low rays coming through the shuttered windows."



tistic effect. In *Assassins*, we are constantly zooming very slowly. It builds suspense. My operator, Ray de la Motte, was very good at it, giving it this floating feeling."

Commenting on the "too sharp" quality Primos enjoy, Zsigmond describes his progressive filtration strategy as running parallel to the narrative — Stallone's character begins as a hardened killer and gradually softens. He adds, "You can use fog filters or nets — everyone has their own technique — but it became another point where the cinematography could support the story and the character."

Zsigmond's initial visual tactics were also helpful as Donner's fast-paced editing strategy was taken into account, which made his construction of each frame even more vital. Discussing the advanced stage of image literacy audiences have today, he recalls, "In an early film of mine, *Futz*, the director inserted a one-frame cut of something that could be considered very pornographic. But nobody really saw it except one film critic, who pointed it out. That's where most people are today because they have seen so many movies and so much television. They are educated to see fast

images, and it is getting even faster, especially in America.

"When a shot is only going to be on screen for three seconds, that composition and lighting has to be very good to allow the viewer's eye to see what you want them to," he stresses. "There's no time for them to decide what is important, so you have to direct their eye, *force* it. It pushes the cinematographer to light better, more three-dimensionally, graphically. So we worked to separate the foreground, background and middleground and used a desaturated color scheme to simplify the image. You can see things better that way.

"But good lighting always makes a shot clearer. Good lights are very close to the frame line and I like to think that the proper composition for any shot is one that *just* keeps the lights out. And a key light, ideally, is *inside* the shot. If only we could afford to light correctly and CGI the fixtures out! But that is why I often use practicals."

During the opening of *Assassins*, Zsigmond lays the groundwork for his noir aesthetic: a monochromatic flashback sequence during which Stallone's character hunts human quarry in San Juan, Puerto Rico. Admitting that he's

always on the lookout to shoot in black-and-white, Zsigmond additionally thought it an economical way to create a feeling of the past. However, after shooting comparative tests with Plus-X and 5293 and printing them on color release stock, he was disappointed with the final outcome, and "shocked" to realize that Kodak's black-and-white emulsions failed to measure up when compared to their state-of-the-art T-grain color stocks. Replicating his printing tests on finer-grained, 50 ASA 5245 via a black-and-white interpositive, Zsigmond's result was a color internegative that is "almost monochromatic" and which could be intercut with the *Assassins'* final conformed negative. This degree of complexity was echoed throughout the production.

Says Zsigmond, "When you do a film like this, it takes more time — the shadows and contrast have to be dealt with — but we also had a very short production schedule for this movie. So, I had to think of ways to save time but make sure we had enough to *be* artistic. For instance, we have a very big shoot-out sequence in a burned-out, ruined hotel, for which we shot interiors on sets in Seattle and later did the exteriors in Puerto Rico."

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The close-range cab gunfight utilized stunt and VistaVision plate photography by second-unit cinematographer Gary Holt. Zsigmond later shot the interiors involving Stallone and Banderas with rear-projection at the studio. To enhance the scene's claustrophobic tension, he primarily used long lenses to tightly frame the action.

Configured by production designer Tom Sanders, the elaborate hotel set was constructed at the Lake Washington Naval Base as a three-story, 60' high practical location which could be pre-lit, permanently rigged and controlled by dimmers and switches to create day, dusk, sunset and nighttime when called for — with minimal time required for relighting. HMI Fresnels (as opposed to tungstens, to reduce heat and for sharpness) were primarily employed, mounted outside on scaffolding and streamed cathedral-like through shuttered windows, boarded-up doors and holes in walls. However, the “sun” key lights were 4K Xenon spots, which sent strong shafts deep into the set. In addition, a 150' by 60' cyc depicting San Juan surrounded the hotel, lit with 12Ks. While the lights were all corrected to maintain a perfect 5500°K color temperature, Zsigmond decided against using colored gels to create the day cycle.

The innovative cinematographer explains, “I also didn’t want to take the time, adding a little CTO for daylight, some blue for moonlight. The shooting schedule would have to put all the night scenes together, day scenes together and so on. But because of our short schedule, and because action — and there is a lot here, a

cat-and-mouse game — takes place on each of the three floors of the stage, it was much faster to use no gels and just tell the lab, ‘Make this daylight, make this sunset, make this night.’ So they did the gelling for me and it looked beautiful! And besides, you cannot gel Xenons — they just burn up — but I love the way they re-create shafts of sunlight.”

The lab, Alpha Cine in Seattle, had lobbied hard to get *Assassins* and earned high marks from Zsigmond. Company president Cathy Main notes that to compete with the Hollywood labs, Alpha Cine had to be ever-available, provide Zsigmond with timed dailies that met his specifications and supply film-to-tape transfers that fulfilled the production’s Avid post needs. She adds, “Working with a master like Vilmos was a great experience.”

Says Zsigmond, “The great thing about going into a small lab like this is that you are the only picture there; they really took tremendous care on our job.”

Zsigmond augmented this lab-assisted technique by controlling his key/fill ratio, diminishing fill and killing certain lights when necessary. He also used a touch of smoke for the sunset mode, to “create those low rays coming through the shuttered windows.”

To save additional time, the cinematographer also utilized multiple Panavision cameras. “We always do with Dick,” Zsigmond confirms. “Even on *Maverick* we would use up to five cameras. This time, we also did quite a bit of opposing angles, which I hate to do because the lighting will suffer on one shot. So it is always a compromise, just a question of how much of one it will be. But I hope by having those extra shots in this quick editing pace that it will add up to a better sequence. Lighting is important, but not so much that you are too precious to get what the director needs for the scene.” With that, the cinematographer jokes, “Sometimes it saves the director’s ass.”

Another intricate action sequence involved a chase through the streets of Seattle. In the scene, Stallone has stolen a taxi and Banderas is trapped in the back seat — behind the cab’s bulletproof Plexiglas divider. Only inches from his target, Banderas cuts loose, resulting in a wild gunfight within the confined space as Stallone tries to return fire while driving. “We shot it three different ways,” Zsigmond says, obviously excited by the scene’s success. “First, the second unit and the stunt people did their exteriors, then they went back and shot plates for us to use for rear-projection in the studio. And they all had to match, which required a lot of coordination. The second-unit cinematographer, Gary Holt, did a fantastic job, lighting four city blocks for the stunts and the plates. So it was easy for us in the studio.” The stuntwork was shot first on 5298, again using multiple cameras, while the plates were shot later in VistaVision.

Not incidentally, this nighttime sequence and others influenced Zsigmond to shoot *Assassins* in 1.85:1, as he needed the extra stops anamorphic lenses would have absorbed.

But what twist did Zsigmond add to the old rear-projection technique? “Well, we used long lenses. Background projection people tell you that you have to shoot with whatever lens they used to shoot the plates, but we didn’t. We needed the movement of the plates, but we didn’t really need to



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see the details — they can be out of focus. Some old, conservative projection experts say you should shoot your plates slightly out of focus, but I would rather have them sharp and then do that with *my* lens. There are a lot of rules there you *should* break.”

Does Zsigmond prefer traditional process work over bluescreen or CGI techniques? “What’s important is knowing if you want to see the shot immediately,” he says. “For my tastes, a good background projection system will give you the best results for an action scene like this. With process work, you see everything. With bluescreen, they say, ‘We’ll do it later.’ But you’re usually shooting bluescreen because you don’t *have* your background material yet. Now people also like to say, ‘Don’t worry, we’ll CGI it,’ but

they’re not so happy when they get the bill. When we needed a sky for the open courtyard of the hotel set, our producer said, ‘We’ll CGI it in.’ Instead, we covered it with muslin and back-lit it with HMIs, which looked quite good and saved probably \$50,000. It’s old-fashioned, but I think if you can do things on the set, do it. CGI should only be used when there is no other way or when you *save* money.”

Inherent to close-quarters confrontations such as this cab shoot-out is the dilemma of maintaining spatial relationships between characters, particularly when captured primarily in close-ups. Says Zsigmond, “It’s part of a visual language dictated to film by television. All these close-ups really work on television, but it doesn’t on the big screen. I don’t

personally like it, and Donner and I had some discussions about it, so I would always make sure we would get one wider angle to show the whole scene — just for the editor in case he might need it. I insist on it. If it is not used, fine. It’s better that the editor have the choice later.

“But most of the excitement of the taxi scene was in their faces. So we would use split-field diopters to get them both in focus for certain shots — which is a technique we used a lot.”

While Zsigmond utilized depth to control images within shots, achieving actual depth of field would have worked against his visual scheme. “It’s totally different,” he says. “To create real depth, you usually have to use very wide lenses, making things in the foreground very big and in the

Aiding and Abetting on Assassins

For *Assassins*, director of photography Vilmos Zsigmond, ASC once again joined forces with gaffer Norman Glasser, who had previously teamed with on *Intersection*, *Maverick* and *Sliver*.

Asked of his work with the cinematographer, Glasser readily states, “Vilmos is the master of light. I just sit back in awe, watching him create something out of nothing. It’s amazing how fast he can think. If we could work as fast as he could think, we’d have shot the picture in two weeks.

“It’s important that the cinematographer has somebody to back him up,” he adds. “Even though you’re working for the producers, it’s the director of photography that’s hiring you for the job and that’s where your support lies. You have to fight for man-power, equipment, and time to give the director of photography what he’s asking for.”

For the production’s three-story burned-out hotel set, built in a naval warehouse in Seattle, Zsigmond and Glasser had to render a look for many different times of day for the entire structure.

“We had to do time changes from morning to night,” recalls

Glasser. “It was really difficult to keep track of the different kinds of lighting from scene to scene. We had to move the key-light around from one side to the other side, eventually doing 180 degrees.”

To execute the lighting for the hotel sequences, Glasser had to maintain Zsigmond’s visual requirements while facing the logistical demands of the large set. “We couldn’t hang anything — the set was built way up to the steel beams of the warehouse. Because we had to shoot on all floors, we had Xenons and 12Ks on scissors-lifts to get the light to come from above. We also had to change the height of the lights [to reflect the movement of the sun during elapsed story time].”

For a problematic hotel courtyard set, key grip Richard “Dicky” Deats utilized construction scaffolding to facilitate quick and efficient lighting. “It’s very important to have a great working relationship with the key grip and grip crew — they can either make you or break you. Deats really saved our lives,” says Glasser. “He came up with a brilliant suggestion that made our lives a lot easier, saving hundreds of thou-

sands dollars we would have had to spend on scissors-lifts and Condors. That’s where the collaboration of the key grip, the gaffer and the cinematographer — all putting their heads together — results in a workable idea.”

Glasser notes that it is essential for the gaffer to take advantage of any prelighting opportunity, and to give the director of photography as much time as possible to make adjustments and work out the material with the director. “Sometimes you do get trapped and you have to make the best of the situation, but it’s important to pre-rig and pre-light. Occasionally, I will leave the set, leaving my best boy with the director of photography, and pre-light the next set. I pre-lit a lot of night scenes on *Assassins* which we then just came in and shot. It was very pleasing that Vilmos would shoot it the way it was without changing it.”

Glasser adds, “Collaboration is probably the key word. I think the gaffer’s job is to carry out the ideas of the cinematographer, but also throw in some of his own ideas. I enjoy working with Vilmos; he’s got a wonderful sense of humor. I’m very proud to say I’m associated with the pictures I’ve done with him.”

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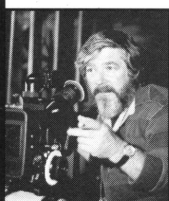
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background very small, like Gregg Toland [ASC] did in *Citizen Kane*. But with split-field diopters, you can do the same thing with a long lens. In one of our scenes, Antonio Banderas is target-shooting from a window at an apricot, which is in the extreme foreground. But we used a 100mm lens, which would have been impossible to use if we were shooting with real depth. With a wide lens, the apricot would still be big in the foreground, but Antonio would be tiny, so the image wouldn't work. So one method is not a substitution for the other."

However, in this case, the split-diopter created as many problems as it solved, requiring Zsigmond to improvise. He recalls, "Because of the way the shot was framed, the background on one half of the composition was out of focus, while the other was sharp, which bothered Dick. So he asked if I could put another diopter on the other side to have them both soft. That wouldn't work, but it gave me the idea to use Vaseline on the lens to throw the sharp side background out of focus. We *tricked* it. But there is always a way to hide things." However, it's also clear that the necessity to improvise too much can bother a perfectionist like Zsigmond.

Returning to the issue of time and *Assassins'* rapid production pace, he notes, "The schedule is everything and it is the biggest sin to get behind, because that takes time away from postproduction. So cinematographers and lighting people are pushed into a faster pace. You can name any good cinematographer in the ASC — Haskell Wexler, Storaro, Conrad Hall — and they all have the same problem. Now, we had a 75- or 80-day schedule, which is much longer than the time it took to make many of the old movies. But they didn't have so many shots, so many cuts — the pacing was different. And that really hurts the cinematographer's position to do good work."

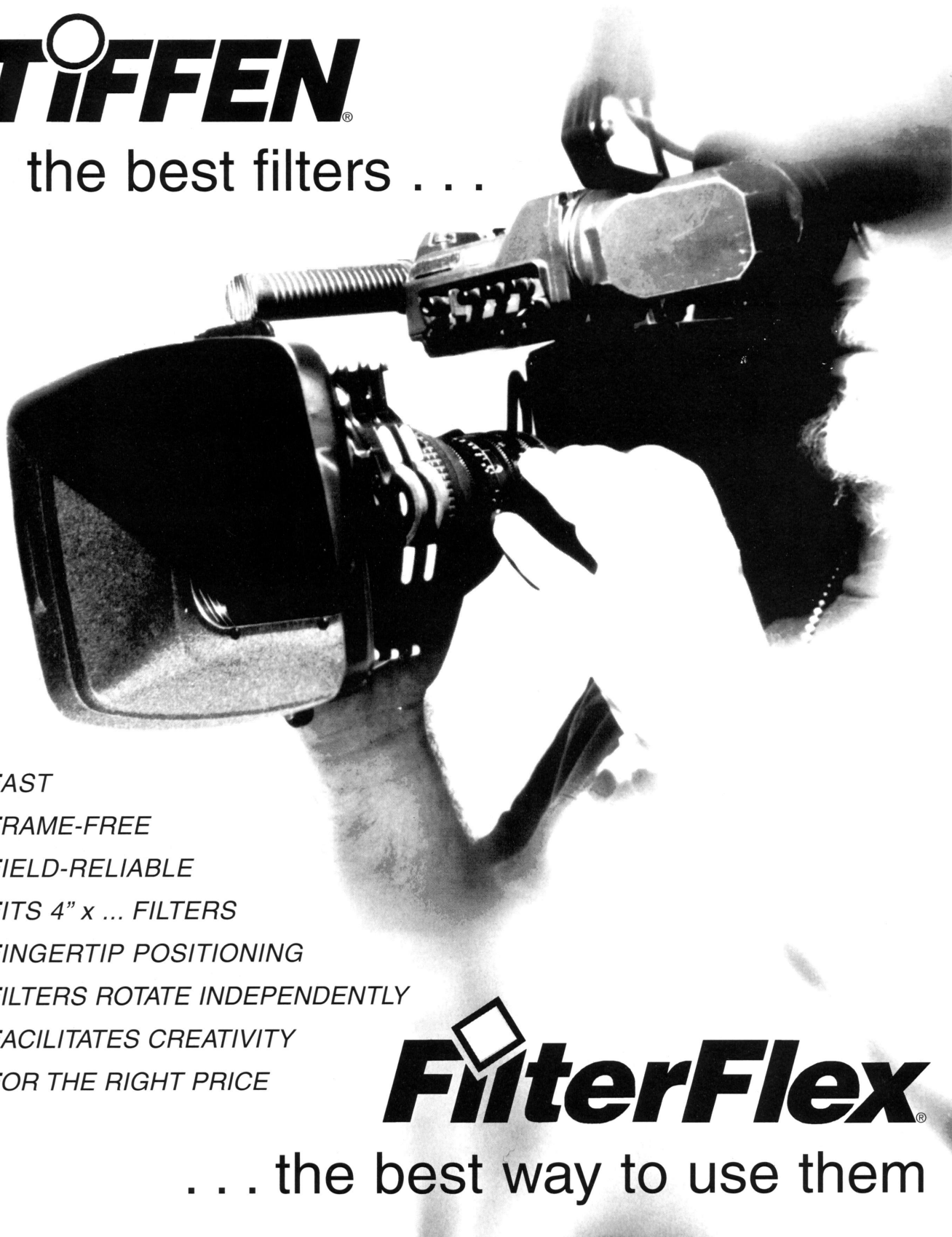
Regarding working with a veteran such as Donner, Zsigmond reasons, "It's always good to deal with someone who knows what he or she is doing. But some inexperi-

enced directors know a lot about moviemaking also. When I did *Sugarland Express* with Steven Spielberg, he knew a lot about film. But he was still learning and I could contribute to the creative process. Other directors I have worked with, John Boorman, Brian DePalma or Mark Rydell, were always looking for new ways of doing things, with new techniques. So I was lucky to work with them.

"But more importantly, you always learn from a good director and I was amazed by what I learned from Dick. It's much more fun. All good cameramen develop a good storytelling language that allows you to interpret the script into shots and angles. But you can get to the point where you are imitating yourself. In comes a good director like Donner and he'll look at a shot and say, 'Oh, this is so boring, can't we do something else?' For example, there is a shot where the two assassins [Stallone and Banderas] are side by side on the road — Stallone sitting in a car — and each is unaware of the other's identity. Now I would usually have shot Stallone through an open window. It's easier to light, to see the face. But Donner said, 'Why don't you close the window?' I said, 'But what about the reflections? You will hardly see his face.' And he said, 'Oh, I love the reflections — that's great, wonderful!' Now, most directors would want to see his face, but not Dick. He'll say instead, 'You see the actors for 90 minutes in the movie; you know what they look like.' And it's nice to work for a director who will put a star in silhouette. In another sequence, a love scene between Julianne Moore and Stallone, you only see their kiss as a shadow on the wall. We had the coverage of the actual kiss, but Dick preferred the shadows and chose to show it that way, which is much more interesting. It was a bit of a return to the old films, where things could still be told in light and shadows." ❧

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DIRECTOR OF PHOTOGRAPHY MATT Leonetti, ASC peered through all of the night's thousand eyes to capture the richly textured and technologically groundbreaking look of *Strange Days*, a noirish thriller that unfurls almost exclusively in the post-meridian hours. Set on the eve of the millennium — New Year's Eve, 1999 — *Strange Days* tracks the dubious activities of a gang of fringe operators who dabble in a new kind of narcotic: "sensory recordings."

Reminiscent of a similar device from Douglas Trumbull's *Brainstorm*, SR is a kind of personal virtual reality that allows people to record experiences directly from their cerebral cortex using a wired skullcap called a SQUID (Superconducting Quantum Interface Device) array. Apparently moonlighting between directorial assignments, *Strange Days* executive producer/screenwriter James Cameron says he imagines SR as a futuristic offshoot of law enforcement technology, a next-generation wire-tap. "It's not really virtual reality, because VR exists, and this doesn't," he says.

The resulting tapes are a hot black-market item that Lenny Nero (Ralph Fiennes) deals out of a briefcase in parking lots and seedy bars. "You want to take a walk to the dark end of the street?" Nero asks a prospective customer, enticing him with "the stuff you could never do, but sometimes think about" — everything from the adrenaline-charged high of armed robbery to more sensual pleasures, like experiencing the world through the eyes of an 18-year-old girl. "It's all do-able," he croons. Nero's circle includes Mace, a limo-driving bodyguard with a heart of gold (Angela Bassett), and the rock-star wannabe Faith (Juliette Lewis).

"This is society's underbelly, the bottom-feeders," director Kathryn Bigelow sums up. "It's a

world of hustlers, of night crawlers who exist in a kind of parallel universe with the world of day, where people have jobs and normal lives. This is about people who have dark needs that have to be satisfied. They're living at an intensity that the world of the day

tor, who'd admired Leonetti's night work for Walter Hill on the films *Red Heat*, *Another 48 Hrs.* and *Johnny Handsome*. "I can't remember one shot in the movie where we didn't use at least one light, even in the daytime." Leonetti adds with a chuckle, "And we

Long Nights and Strange Days

Director Kathryn Bigelow and director of photography Matt Leonetti, ASC paint a rich evening canvas for the tech-noir thriller *Strange Days*.

by Paula Parisi

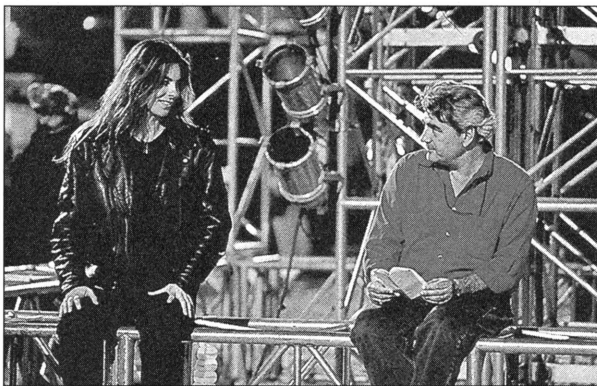
doesn't necessarily promise or hold."

To portray their seamy world in a way that would be seductive to viewers, Bigelow decided early on that "the photography had to be the looking-glass through which you want to enter. Yes, it's dark and grim, but there's

usually used more than one."

Visually ambitious, *Strange Days* expands the cinematic vocabulary with an abundance of unusual POV shots used to suggest sensory recording and playback. "The camera became the eyes of whomever's experience we were recording," Leonetti notes. A variety of camera systems were used to achieve the look, says James Muro, who in addition to operating the Steadicam did a lot of hand-held work using an Aaton and a tiny Robings SL, a 35mm camera that weighs about six pounds with film. Reserving the Steadicam for the more conventional shots, such as running down train tracks, Muro relied on the Robings for the more fluid POVs. Coupling it with the Helmet Integrated Display (HID) unit developed by Lightstorm Technologies and Mike Cameron, Muro was able to hold the camera anywhere while maintaining a viewfinder image in his helmet device. This enabled him "to literally put the camera where the actor's head would be."

A variety of lenses were used for the POVs, including a 32mm, 40mm and 50mm. "Your eye is really like a 50mm," says Leonetti, who tried to avoid going too wide, though he admits "sometimes we used a 25mm, because we



a sensuality to it, an excitement that the darkness holds that you want to explore."

The luminous, deeply saturated look that Bigelow was after was achieved in an 80-day shooting schedule that included a whopping 77 nights — a significant lighting job for Leonetti and gaffer Pat Blymyer. "This film had only moments of daylight in it, and that was a deciding factor in choosing a cinematographer," notes the direc-

Opposite: A camera cranes in on New Year's Eve extras celebrating in Strange Days. Constant movement — Steadicam, crane and dolly shots — made lighting difficult for Leonetti (left, with director Kathryn Bigelow) who says, "That meant hanging or getting lights up in the air so you don't see them." Tall poles and rooftops were heavily utilized as platforms outdoors while the crew relied on overhead grids inside.

Right: While shooting the film's massive celebrations and surrounding scenes over 77 nights, Leonetti and gaffer Pat Blymyer lit a seven-block stretch of Sunset Boulevard with Nightlights and a Night Sun while filling dark areas with fluorescent practicals and other sources. Concert rigging was used for sequences involving Faith (Juliette Lewis) and her band (below).



had to." Oddly, this was one film in which there were almost as many different camera systems as lenses. The addition of Leonetti Cine Rental's Ultracam system for A-camera work, also handled by Muro, brought the total number of camera systems to four. This presented a tricky situation in terms of blending the imagery, Muro says. "You've got to cut between these things and make them work as one seamless shot. So there are shots that are completely seamless, and there are others we had to manipulate. It might be better to use hand-held for a certain part, but then for when the actress takes off running we've developed this little POV language and we might go to the Steadicam for that. So we've got to put a cut in there somewhere. We used every trick in the book, from wipes to digital dissolves and morphs. But part of the beauty was that Kathryn was very frugal with the stuff, so it wasn't, 'Wow! Here comes the next fantastic brilliant effect.'"

Visual effects supervisor James Lima said the just-out-of-beta quality of the SR technology, as written into the script, compelled him to use lower-tech effects, including digital video, Hi-8



video and traditional opticals. The 35mm footage was transferred to digital tape for editing, and Lima was able to manipulate that imagery in his computer using Adobe Photoshop. Those files could then be quickly exported to his Avid editing machine to create comps. "What we discovered was that slight fluctuations in color, contrast and grain structure of the film — plus blowing up, reducing and just doing the strange things you could

do in Photoshop — started to layer this style into the film that had a kind of video effect to it. This was just temp work, but it gave me something I could take to Kathryn and say, 'Is this what you want me to do?'" For final shots, Lima "used every available D-1 editing bay technology — I played with solarization and chroma, color saturation. Colors pop differently on video, particularly red and blue, so it was very exciting to manipulate video in D-1 and then go back to film." The process also resulted in some subliminal artifacts that were just what the doctor ordered when it came to suggesting an edgy sensory recording experience.

Lima assigned quirky personality artifacts to different characters' POVs. "If somebody is very nervous, then that SR in the playback mode is going to make you feel nervous when you watch it." A major narrative device — identifying the POV of the murderer who "SQUID-records" his kills — is tied in with color desaturation indicative of his color-blindness. "The shots were designed so each individual sensory experience was indicative of who was recording it — the way the cameras moved, which

SR-dealer Nero (Ralph Fiennes) and his bodyguard, Mace (Angela Basset), confer in shadows. Says Bigelow, they are "night crawlers who exist in a kind of parallel universe with the world of day, where people have jobs and normal lives."



lens we used, how we got in and out of the virtual reality experience was all designed for each individual." Leonetti estimates that 50 to 60% of the film was shot with the Steadicam or some sort of moving camera. "There's a tremendous amount of moving camera in this show, which Kathryn likes to do because it gives energy to the scene. But it creates a lighting challenge."

That was particularly true of several POV shots that involved 360-degree pans. "Those shots meant hanging or hiding or getting lights up in the air so you don't see them. There's all kinds of different tricks you have to use to do that," the cinematographer confides. For example, one scene starts out with two people driving up to a man sitting in a car. "They all get out of their cars and start talking. We all walked around a lot. We shot it all with a Steadicam, but we did it 360 degrees two or three times. So it was a matter of putting lights up on buildings. We took some high poles that we rigged and put lights up on those, and they just looked like street poles," says Leonetti, who avoided a flat look in the scene by using a dimmer. "We would keep dimming the lights up and down as we changed the angle of the camera, so it would all have the same look. When you light somebody, the reflectivity is going to be different, depending on whether it's a crosslight or a frontlight. A frontlight is going to reflect more light. We didn't want to have to change the lights all the time — you go crazy with that — so we had an electrician hidden behind one of the cars operating the dimmer."

Another tricky scene took place on a street bridge over a freeway: a car drives up, Mace gets out,

pulls Nero out of the back seat and drives off as he jumps onto the hood of the car and is chauffeured alfresco for a couple hundred feet before she stops the car, gets out and engages him in dialogue. "The whole sequence is on the bridge. There's air on both sides, and behind you it's 250 feet this way, 250 feet that way, so the question becomes, where do you put the lights?" Leonetti queries. Since he'd anticipated the problem during his original scout, he was able to get the city to put up some temporary streetlights. "Behind those we hid little flat nook lights. And then we threw a couple on the ground and hid a few behind a couple of pillars and things like that, but those streetlights were our main source of light. That was one example of pre-planning really paying off."

But Leonetti says his biggest feats involved lighting huge swatches of city streets. "We had to shoot a seven-block stretch of Sunset Boulevard, and be capable of shooting both sides of the street at the same time, with several different incidents going on," he explains. "If you try to use available light, you're going to have a lot of dark areas; you'd be restricted to very few footcandles, and what kinds of lenses you'd be able to use. So we had to light it. We had, at times, six generators, I don't know how many 4K Pars, and 100-watt Pars, 18Ks — dozens of lights."

Cabling the entire route would have been too time-consuming, and the crew would have had to take the cable up at the end of each night's shooting. Instead, Master Lights (another Leonetti invention) were laid along the ground, as were fluorescents, which were also taped or screwed to the

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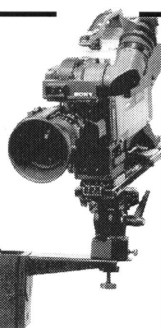
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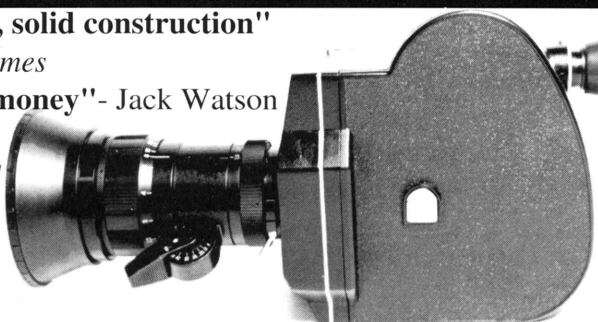
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sides of buildings, becoming part of the scene. Small 40-amp generators were hidden behind trees and cars.

Nightlights from Bebe and a Night Sun were also used. "We'd park one on one corner, skip a block and go down to the next corner. We also had a couple of Condors with 4K Pars on them. And we'd mix it up so it wouldn't all look like top-light street lighting." Steam and smoke was backlit either with HMIs or Xenons. Says Leonetti, "There's all this frenetic stuff going on in the film itself and this type of lighting enhances the feel of the story."

Leonetti generally shot at 25-30 footcandles to maintain an aperture of T3-3.1, though sometimes he went down to 15 foot-candles. Kodak 5298 gave him more than enough exposure latitude to capture the nuances of night, and sometimes more than enough. "You have to be careful," he advises. "The detail in the shadow on film will sometimes show more than what your eye sees. You have to be careful not to overlight if you're looking for deep shadows." Kodak's 5248 was used for the daylight exteriors. The result is gritty, but not in the sense of grain on the film. "We gave a very full negative," says Leonetti, noting that this was particularly crucial since the film was shot Super 35 with a common topline and would be blown up from an interpositive for theatrical release. "We didn't underexpose and we didn't go higher than the middle. All my printing lights at CFI were in the 40s or mid-40s. In scenes where there was smoke the printing lights would jump a little to the high 40s. But overall, we wanted it to be rich and colorful, yet with an underground look. Overall, I'd say this is a stylized film."

Bigelow gives Leonetti high marks for realizing her dreamy, dark vision. "I really think night exterior work is that which defines cinematography, to a certain extent. Because you can create anything — and *have* to create anything, because there's nothing to expose if you don't light it. Night lighting really is *painting* with light. The canvas is limited only by your imagination, and Matt's was unlimited. He was fearless."

Thank you!

Kathryn Bigelow
“Strange Days”



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L AJOS KOLTAI, ASC, HSC WAS searching his English vocabulary for the word to describe working with Jodie Foster. The word was trust. Trust was the glue bonding the collaboration between the cinematographer from Budapest and the director from Los Angeles.

Foster debuted as a child star in *Kansas City Bomber* when she was 10. Four years later, she made

the Western world. There were no turkey dinners or family reunions on Thanksgiving Day in Budapest.

There was a time during his youth when Koltai dreamed about becoming an actor. He performed and occasionally starred in school plays. When he was 14, Koltai shot an 8mm film during a family vacation. That changed his dreams, as he became intrigued by

mental films. He would later team up with Szabo during the early 1980s and collaborate on eight films, including *Mephisto*, which earned an Oscar as Best Foreign Feature in 1982, and *Colonel Red*, nominated in the same category the following year. In 1987, Koltai shot *Gabi* in Mexico, his first film in North America. His other U.S. credits include *White Palace*, *Born Yesterday*, *When a Man Loves a Woman*, *Homer and Eddy*, *Wrestling Ernest Hemingway*, *Just Cause* and *Mobsters*.

The first hint that Foster was thinking about working with him came in a phone call from a gaffer while Koltai was in Florida shooting *Just Cause*. His friend reported that Foster was asking questions about his work and said there might be a future project. A few months later Koltai and Foster met for lunch in Los Angeles. For two hours, they discussed their feelings about Europe, the cinema, painting and other arts.

Koltai didn't hear from Foster again for eight or ten weeks. Then there was a call asking if he was interested in shooting *Home for the Holidays*. Koltai loved the script because it focused on relationships rather than pyrotechnics.

He also looked forward to working with Foster and thought the casting was superb. His answer was yes. The next step was a month of preparation time in Baltimore, where all exterior locations were photographed.

It was a uniquely collaborative experience, with Foster writing daily notes outlining her thoughts and asking questions about specific scenes.

"They were never just technical questions," Koltai says. "She wanted to know what I thought about everything. Even if the notes were for [production designer] Andrew [McAlpine] she gave me a copy. What did I think about a location? What should be in the background of a scene? How

Setting a Sumptuous Table

Cinematographer Lajos Koltai ASC, HSC captures the warmth within a troubled Thanksgiving for director Jodie Foster in *Home for the Holidays*.

by Bob Fisher

an indelible impression in *Taxi Driver*. Instead of fading into obscurity like so many other child stars, Foster studied film at the Lycee, in France, and earned a fine arts degree from Yale University. She subsequently won Oscars for performances in *The Accused* and *Silence of the Lambs* and then made her directorial debut in 1991 with *Little Man Tate*, which earned accolades from the critics.

Her second effort, *Home for the Holidays*, is a bittersweet comedy focused on three days in the lives of a dysfunctional family during a Thanksgiving reunion. The film features Holly Hunter and an extraordinary ensemble cast, including Robert Downey, Jr., Geraldine Chaplin, Anne Bancroft, Dylan McDermott, Charles Durning, Steve Guttenberg and Claire Danes.

Many people in the baby boomer generation will relate to *Home for the Holidays* from a lifetime of similar personal experiences. Koltai, however, is an exception. He was born in 1946, just in time for the beginning of the Cold War. Far from being a mere political euphemism, the "Iron Curtain" was an impenetrable barrier which isolated him from all contact with

the process of making films. In high school, Koltai wrote and directed films, and organized classmates to play the roles. The highlight came when he won first and second prize in an amateur film



festival. One of the judges was a young director named Istvan Szabo.

Koltai studied at the Hungarian Film Academy under the guidance of Gyorgy Illes, the same cinematographer-educator who nurtured Laszlo Kovacs, ASC and Vilmos Zsigmond, ASC. Midway through school, he decided to concentrate on cinematography. After graduation, Koltai worked at the Bela Belazs Studio, which provided opportunities to shoot short experi-

Koltai and Foster prepare for their next take in Baltimore, a chilly location that the cinematographer says added a distinct visual texture to *Home for the Holidays* with its unique weather and quality of sunlight.



Foster and Koltai employed long takes for the dinner conversation scenes, designed to maximize the use of space and keep the audience engaged in the dysfunctional family's interaction. Cold light from outside offsets the warmth within the home — actually a set on the Warner Hollywood lot.

aggressively should we move the camera? There was always a discussion. She trusted me, and that brought out the best that I had to offer.

"It's easy to talk with Jodie about film. Sometimes I referred to a French or an Italian film when we were discussing lighting or camera movement. She not only had seen all of the films I mentioned; she also spoke French and Italian."

Koltai decided to shoot *Home for the Holidays* entirely with the Eastman EXR 5296, also utilizing a technique where he would slightly overexposed the negative to subtly reduce grain.

"It's like having a picture that you take out of wallet to look at 10 or 20 times," Koltai describes. "After a while, it starts looking a little aged. That's the look we wanted."

Koltai also decided to use virtually no diffusion on the camera lens. The only exception was on very tight close-ups of actresses, and then it was just enough to take the hardest edge off. Diffusion was never used to make someone look more glamorous.

Home for the Holidays opens with Hunter's character get-

ting ready to visit her parents for Thanksgiving, and her life isn't going well. She had just been fired from her job, and her daughter has refused to make the trip with her, opting instead to stay home with a boyfriend whom Hunter doesn't approve of. Hunter has a favorite brother who has a way of settling family disputes, but she isn't certain if he is going to be there. What else could go wrong?

"She is totally miserable," says Koltai. "Even before she arrives, she's counting the hours and minutes until she can leave. The homecoming is like an opera where everyone in her family has a solo role — a monologue. Most of them are burdened by problems."

While they were preparing to shoot in Baltimore, McAlpine gave Koltai books filled with pictures of homes in the city. It was a place to begin to search for a look. "We went through the pictures, but Jodie never said, 'This is the look I want,'" Koltai says. "She spoke about the emotions she wanted, and her feelings about the characters."

The Baltimore locations added a unique visual texture to the film, he explains, because the

trees, streets, weather and even the quality of sunlight are different and much more variable than in Southern California.

The downside: "It was so cold that sometimes it was difficult to breath," he says. "At night, everybody was wearing five or six layers of clothing. It was hard on Jodie, the actors and crew. There were a couple of really miserable nights when all you could do was jump up and down between shots, trying to get warm, waiting for the morning."

Foster and Koltai prepared shot lists together. They planned long, moving shots designed to maximize the use of space, and to keep the audience engaged in following the dialogue and interactions. Many of the exteriors were filmed with a Steadicam operated by Bob Gorelick to keep the visual pacing vigorous.

"We must have looked at 50 streets to find the right exterior for the house," he says. "We kept going back to one. It had magnificent trees. There was something special about them. When I stood at the top of that street, there was a little curve in the road. It was the only street where I had a feeling

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that this was their home. You should trust those instincts."

Interiors in the house were filmed for five to six weeks in sound stages on the Warner Hollywood lot in Los Angeles. Koltai lit the set as though it was an actual house with ceilings and no wild walls. Light was motivated by practical sources, mainly windows. The only exception he could recall was a small room where he removed part of a wall to make space for the camera. Also included was a basement set, where an old 8mm film projector was set up. Another served as the interior of the airplane that carried Hunter home.

Foster preferred using backgrounds behind the windows instead of TransLights. Some details are visible, including a detached garage in the background, a few lights and green foliage. The light coming through the windows was generally colder with warmer sources inside, but varied depending on circumstances.

"It is late in the afternoon when the daughter arrives at her parent's home, and the exterior light coming through the window is almost warm at magic hour," he says. "Ten minutes later it becomes very cold just before nightfall. The shadow side of the house is really cold and the light is a little bluer. I tried to keep it very realistic."

Hunter sleeps in the room she occupied as a child. Nothing has changed. It's exactly the way she remembers it, as if her parents have turned it into a museum, except that her mother is using part of the room. That provides the setting for scenes featuring Hunter and Bancroft together in an environment which mixes the past and present.

In another scene there are eight people seated at the Thanksgiving table. Sometimes Foster wants the audience to experience the scene as a participant, and sometimes through Hunter's eyes. The strongest light flows from the

direction of the windows with a bit of warmer backlight coming from the kitchen. Koltai also used small lamps to create a feeling of ambient light bouncing off the walls, leaving subtle shadows in places where the light doesn't penetrate. Koltai credits McAlpine with designing sets with windows in the right places to motivate a realistic light-

"The audience doesn't have to see everything. Sometimes it's more dramatic if someone is talking and the voice comes from somewhere outside the frame."

— Lajos Koltai, ASC

ing scheme. At the same time, Foster wanted the characters' faces to be appealing and empathetic.

"The characters are all beautiful human beings," Koltai says. "Sometimes it was just a matter of shooting them from their best side and doing a little modeling with light. We wanted to get inside of them and reveal their characters as well as their stories to the audience. There are problems, but this family feels a lot of love for one another."

Home for the Holidays was filmed with flat lenses in the Academy standard 1.85:1 aspect ratio. Koltai explains that the people were the core of the story rather than the settings. Foster and Koltai wanted to make liberal use of close-ups without lens distortion drawing attention to the photography. On close-ups, Koltai always left some space on edges of the frame. He compares his strategy to shooting pictures for a family photo album.

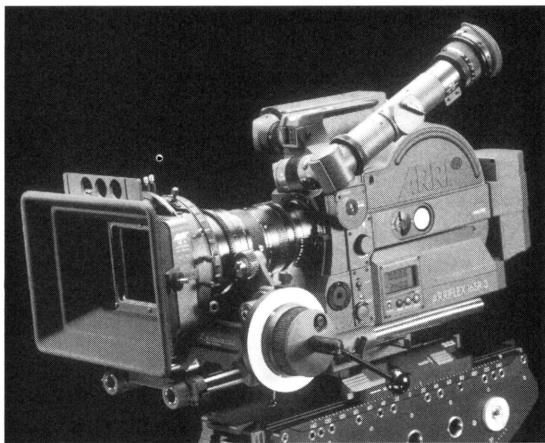
"We use commas and periods to punctuate sentences," Koltai says. "Camera movement and composition has its own grammar. The audience doesn't have to see everything. Sometimes it's more dramatic if someone is talking, and the voice comes from somewhere outside the frame."

There is a natural visual flow when the family is clustered around the Thanksgiving table: people are talking at the same time; the camera moves in on a pair, cap-

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turing a few lines of their conversation; there's a tighter shot of someone reacting, and then it opens up to a wider shot of three or four people. The phone rings and the camera moves to it, gliding over naturally.

"There's always something happening," Koltai says. "People are always moving around and talking. Someone gets up to get a slice of turkey. Someone else is talking politics or problems with the banking system. The table is messy, and food is disappearing, but you never see anyone eating."

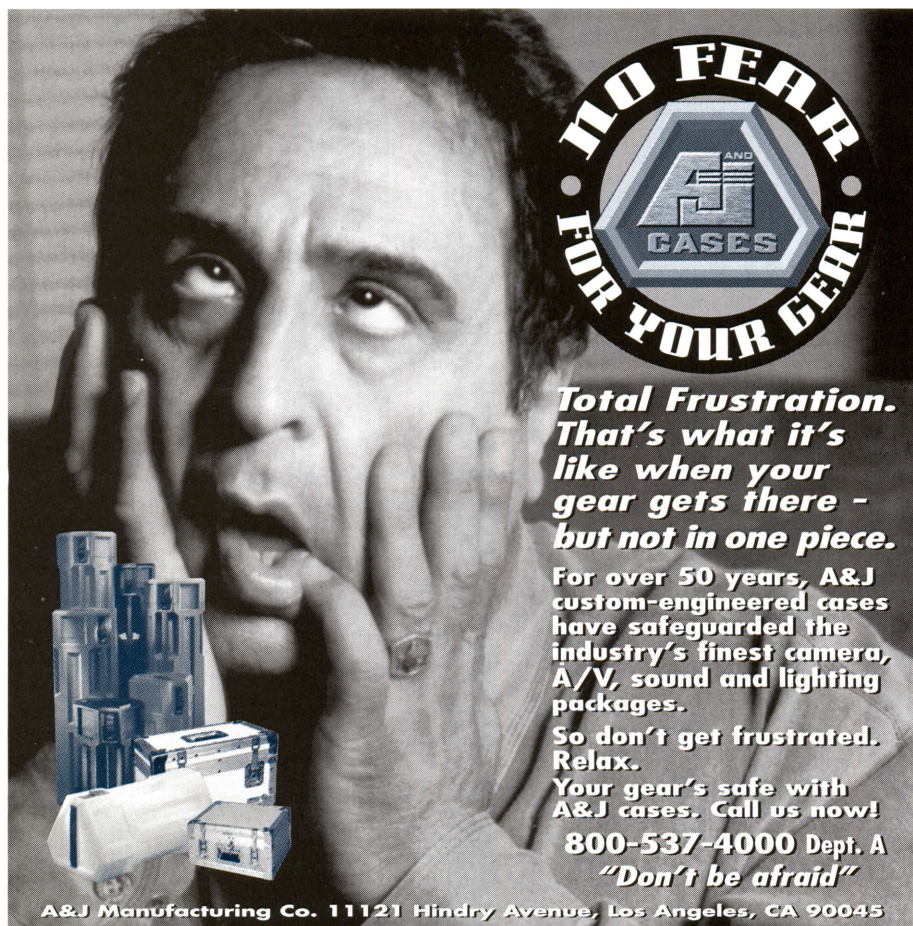
The Thanksgiving time frame served the picture well, Koltai says, because during the day the sun in Baltimore was much lower in the sky than it is during other seasons. The result is that the quality of light was a lot softer than when the sun is overhead.

"It makes a big difference when the sun is that much lower in the sky," Koltai says. "It's a kinder look, giving more structure to the tops of the trees and the side of the house. We had long shadows stretching from one house to another. Once we established that look on exterior scenes, it also gave us a better angle for bringing light through the windows. We put shadows on the walls and floor. It's much more interesting."

Koltai mainly shot with a Panaflex camera and 5:1 zoom lens, and occasionally a 10:1 on exteriors. The operator, Micheal St. Hilaire, SOC, has worked with Koltai on a number of pictures, and knows the cinematographer's taste. While the camera was tracking, he had his finger on the zoom, fine-tuning it to adjust the space to the movement. It doesn't look or feel like he is zooming in or out. The idea was to keep the framing consistent.

Koltai prefers the 18-100mm 5:1 zoom lens because it enables him to choose precise sizes for framing shots compared to the fixed focal lengths on primes. He says there are times when the best size for framing an image is 58mm. At other times, it might be 60mm or 65mm. He believes that flexibility is important.

One day Koltai noticed that Hunter was always watching



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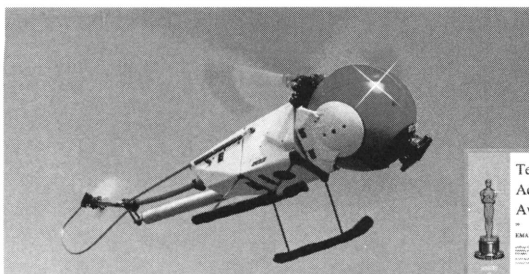
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while he was shooting close-ups of other performers. She played off those shots when her close-ups were filmed. Koltai suggested scheduling Hunter's close-ups last. The actress appreciated that gesture. And while some actors utilize video playback for the same effect, it wasn't an issue on this set. "I've never used it in Europe," Koltai says. "I think it distracts the actors. When we were in Baltimore, Jodie had a video tap on the camera. But she only used the monitor herself and we didn't record tape. We shot the last six weeks in Los Angeles. I think there were only two or three times when she played something back. As time went on, she spent less looking at the monitor, and more time with me behind the camera. I think you are more connected to the actors when you are behind the camera. During the last three weeks, Jodie hardly ever looked at the monitor."

Koltai notes that the advent of digital off-line editing is creating opportunities for a closer collaborative relationship between the director, cinematographer and editor. At times, editor Lynzee Klingman, who was using a Lightworks system, asked if she could get an extra close-up of someone or another type of shot that she wanted to add to a scene.

Near the end of *Home for the Holidays*, there is a movie within the movie as the father shows the family an 30 year-old 8mm filled with warm memories. Koltai believes it captures the core of the story. "It's an emotional scene," he explains. "We didn't want it to look like a dream or a flashback. It was a reminder that there were good times."

The cinematographer used an old, handheld Arri 35 to shoot the home movie footage. While too noisy for sync-sound, it was ideal for this purpose, moving with the characters as though the camera was an invisible participant.

"This story is a very nice mixture of bittersweet feelings," Koltai observes. "There is humor along with the sadness, and there is also a light at the end of the tunnel."

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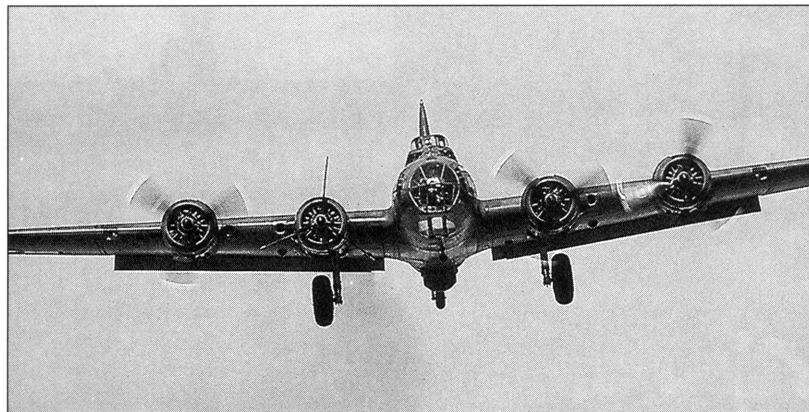
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CINEMATOGRAPHER RON ORIEUX went into HBO's *The Tuskegee Airmen* knowing that he would have to contend with temperamental talent, the kind that required constant attention and pampering. But the job intrigued him, possibly because, unlike most film sets, it wasn't the human actors who would have to be coddled and coaxed to perform, but a fleet of vintage World War II aircraft. "The planes were like highly-paid actors," laughs the Canadian

Flying Against Fascism

In *The Tuskegee Airmen*, filmmakers re-create aerial history with the Fighting 99th, WWII's first African-American fighter squadron.

by Jean Oppenheimer



cameraman. "They were difficult to come by, expensive to operate and available only for very brief periods of time."

Orieux shared camera duties with aerial cinematographer Kevin LaRosa, whose passion for and knowledge of World War II aircraft helped immeasurably during preproduction and filming. At Jetcopters, Inc., his charter air taxi company in Van Nuys, California, LaRosa has his own small contingent of warbirds, including a B-25 bomber, a T-6 trainer, and a friend's P-51 Mustang, the exact model flown by the pilots chronicled in *The Tuskegee Airmen*.

The cable movie publicizes a little-known chapter in American history: the remarkable story of the U.S. Army Air Corps' "Fighting 99th," the first squadron of African-American fighter pilots in World War II. The airmen, who



escorted American bombers making raids over Italy and North Africa, found themselves simultaneously facing two enemies: the Axis Powers abroad and bigotry at home.

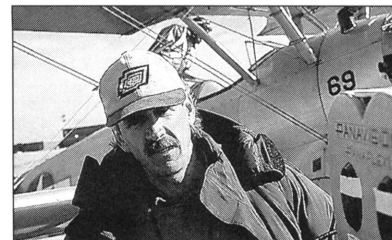
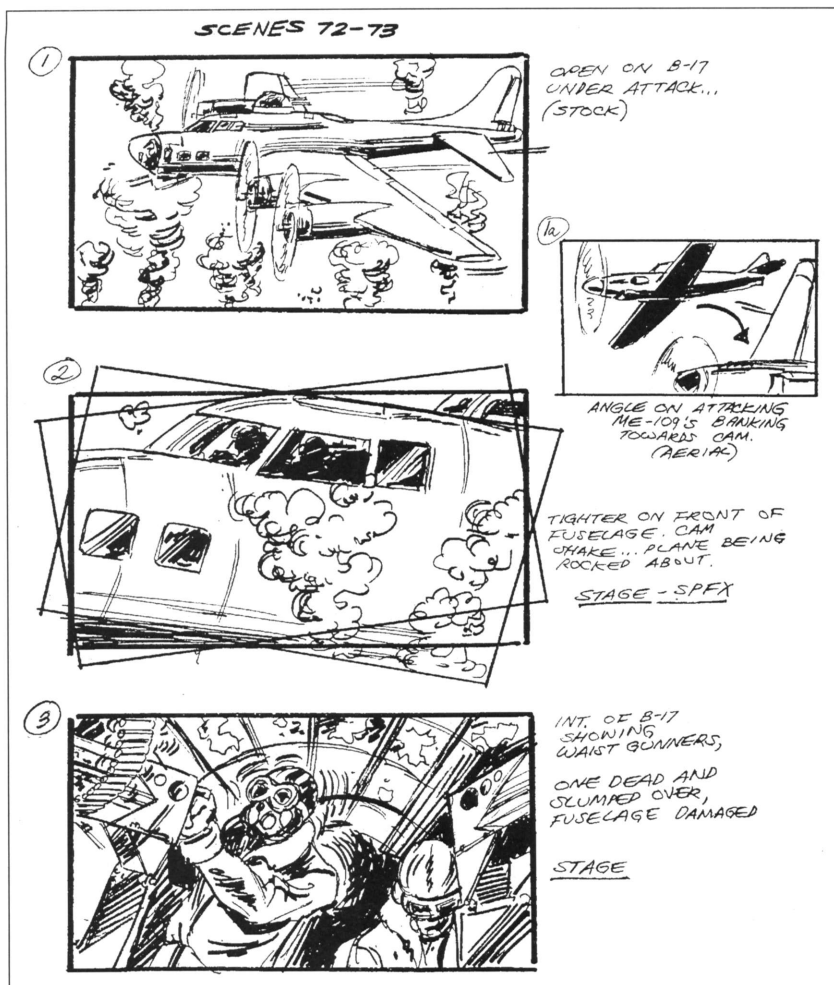
Director Robert Markowitz wanted the movie to emphasize the emotional bond which developed among the pilots and the heroism they displayed. Visually, that meant a subtly romantic look and feel, like movies from the Forties. But Markowitz also wanted to give the film a muted, slightly dreary feel, both to suggest the time period and to reflect the inhospitable conditions and harsh treatment endured by the black re-



Above: Actor Lawrence Fishburne portrays a member of the Fighting 99th, which flew cover for Allied B-17s (top left) over Europe. Their P-51 Mustangs (bottom left) were the premier fighters of the war.

cruits. Actual newsreel footage of World War II was shot almost exclusively black-and-white, and today's audiences are geared to think of the conflict in monochromatic terms, rather than in bold colors. Orieux retained that sensation in color with the help of Kodak

Intricate storyboards dictated the flying sequences for cinematographer Ron Orioux (top right), as well as aerial cameraman Kevin LaRosa and director Robert Markowitz (bottom right). Both directors of photography favored a backlit look for the film, although the weather conspired against them at every turn.



open doorway.

"The operator's hands would freeze," says LaRosa. "[Between the low temperatures and the wind factor] we were flying at 20 degrees or less. When you have four pairs of gloves on, it's hard to pull the triggers on the camera. We had these little chemical heat pads — the kind you shake and they get warm — and we'd shove them inside the operators' gloves so they could at least warm up [when they weren't shooting]."

The bitter cold also froze zoom motors, forcing LaRosa to land and wait for them to warm up again. The result was that the aerials had to be shot in snippets over a seven-day period.

LaRosa, who started flying in high school, served as the film's aerial coordinator and director and piloted each of the three camera ships. He broke down the aerial sequences according to which plane would film which shot, while the schedule was also somewhat dictated by the availability of the aircraft. When he finished with one shot he would land, get out of the plane, climb into another and take off again.

Five different planes were buzzing around at any given time: the ME-109, the German enemy aircraft; the Allies' B-17 bomber; and up to four P-51 Mustangs, the fighter planes manned by the Tuskegee Airmen. While the operator filmed the scene, LaRosa, who was piloting the camera plane, would watch the action on a monitor next to him.

The cameramen cov-

5247. "The colors are not quite as vibrant as the 48 or 45," he explains, "and I also flashed the film, which helped desaturate the colors and flatten things a bit. On brighter days I would use a little higher percent flashing."

The time period also dictated the choice of lenses. "We felt that the period look was not a long-lens look," says Orioux, who worked within a fixed range of lenses. He shot almost everything between a 29 and 75mm focal length, saving his longer lenses for aerial action and very specific moments of drama.

Camera movement was also kept to a minimum. With so much action unfolding in front of the camera — particularly in aerial sequences — there was little need to create an added sense of movement through dolly and panning.

The story takes place in three locales: Tuskegee, Alabama,

where the training facility was located; North Africa; and Italy. Half the picture was shot at Ft. Chaffee, Arkansas, which doubled for both North Africa and Italy. To depict the Tuskegee Institute training base, the filmmakers combined parts of Ft. Chaffee with a facility in Muskogee, Oklahoma.

The weather in Arkansas proved to be much colder than the filmmakers had anticipated, which created headaches for LaRosa and the aerial unit. Three different camera vehicles were used: a Bell Jetranger helicopter, with a standard Tyler side mount attached; a T-28, a high-performance WWII aircraft with special built-in camera wing mounts for dogfight sequences (designed and built by LaRosa); and a standard A-36 Bonanza, also with a side mount. Neither the helicopter nor the Bonanza had doors, allowing frigid winds to swirl around the camera operator, who sat just inside the



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ered everything. "There's no rehearsal when it comes to these airplanes," explains LaRosa. "You do it and if it doesn't look great you do it again. These things are very expensive to operate."

The Bell Jetranger and the Bonanza each had one camera mounted inside, while the T-28 had two, one facing directly forward, the other directly backward, in order to get the POV of both of the pilots engaged in a dogfight. The operator could run either camera at any time from the back seat of the plane.

All the aerial footage was shot during the day. "We used backlight whenever possible," says LaRosa. "It's prettier and more graphic. And we avoided any harsh front light. If you get any flares on the metal it will just blow out the camera."

Orieux also favored the backlit look. "It was a matter of blocking scenes with the ambient light of the day in mind," he explains, "which involved both scheduling and picking the geography. We laid out the sets — i.e. the ones built for the movie — in such a way that we were able to maintain the backlit situation whenever possible." The shooting schedule was determined on the same basis, with morning scenes sometimes shot in late afternoon in order to get the desired angle of the sun. HMIs and 12' x 12' Grifolyn bounces provided fill.

"Contrary to common belief," continues Orieux, "exterior lighting can be more difficult and demand far greater attention than interiors because weather — and therefore light — conditions are constantly changing." In fact, shifts in weather and sky color presented an ongoing problem for the filmmakers.

In an ideal world, says Orieux, he would have shot every scene in a gray, overcast, colorless sky with flat light, but that simply wasn't possible. For one thing, if the sky was too dark or cloudy the planes couldn't fly; they needed visibility with the ground at all times. Secondly, Mother Nature simply wouldn't cooperate, offering a mix of sunny skies, overcast days, and freezing rain and snow

flurries. Matching shots was difficult enough, given that individual shots within a scene were filmed on different days or at different times of day, but further complicating matters was the fact that two physically different locations were combined to represent the Tuskegee training facility.

"The pilots climbed out of their planes in Muskogee, but when they walked around the corner to return to their barracks or go to the classrooms, they did it at Ft. Chaffee," says Orieux. So not only were continuous parts of scenes shot on different days, but also at different sites. Matching up the light proved a real photographic feat, especially when it was raining in Oklahoma and clear in Arkansas.

That situation arose more than once. Surface-to-air shots of the trainees in flight were taken on a sunny day in Oklahoma. The planes were filmed from the point of view of two Air Corps officers standing on the ground, watching them. But the cut-away of the two men wasn't shot until several days later in Arkansas in the pouring rain.

"The military guys were standing at the open door of a hanger looking out," explains Orieux. "We shot them from the back and kept them dead silhouetted, over exposing the sky — letting it go really, really white hot — so you couldn't read the rain."

"When we did any other scene where the skies were clear we set out a lot of smoke smudgepots and had smoke drifting in the background, anything to try and whiten it. If we did close-ups of the planes doing loops, we'd try to have them fly through smoke or haze, which turned the sky whiter, and then come out into a patch of blue."

Other transition shots were designed. On partly cloudy days the second unit would fly against a cloudy background, although the planes themselves would stay in the sun. Or, better yet, they'd actually fly through a short burst of clouds and emerge into the blue. Another trick was wetting down the airfields and runways. "Not a universal wet-

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Photo by Andrew Cooper



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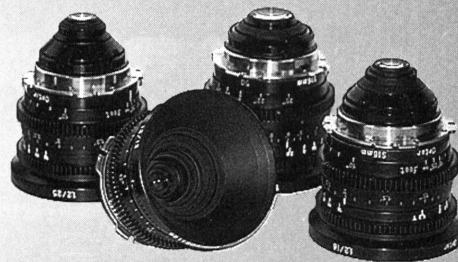
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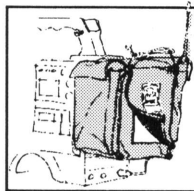
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ting," explains Orioux, "just puddles. The thought was that the audience might feel, well, had a cloud just passed by? Had it rained but maybe just stopped?"

The weather wasn't the only area that demanded compromise and ingenuity. The time and budgetary constraints of a television movie made it impossible to stage actual dogfights, so the filmmakers had to rely on archival footage obtained both from newsreels and from old movies such as *The Battle of Britain* and *The Memphis Belle*.

Before interweaving the archival material with the production footage, the filmmakers had to degrain and clean it, then desaturate the original camera negative so the adjoining pieces of film would match. Other optical work included bluescreen compositing and digitally painting in tracer fire and flak. All in all, the cable movie required an astounding 420 opticals.

The Tuskegee Airmen was one of several television tributes made this year to commemorate the 50th anniversary of the end of the Second World War, but few events of that conflict carried the prescient emotional weight of this overlooked episode. In the segregated U.S. military African-Americans were not allowed to engage in combat missions, yet they were charged with protecting the white men who did. Tuskegee-trained pilots didn't lose a single bomber to enemy fire, an achievement unequaled by any other escort unit in the war.

The emotional content of the story was the filmmakers' top priority, and the movie's shooting style reflected that, an approach which Orioux, LaRosa and Markowitz hoped would bring to mind an earlier era. "The most dramatic moments of the film ultimately come down to some medium shots of the actors in the most incredibly dramatic moments," says Orioux. "And if you look at some of the best old movies you'll see [the same thing.]"

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THERE ARE FEW BUILDINGS IN THE western world as well known as the White House. Yet for all its public visibility there are even fewer buildings in the world with as many security restrictions. *The American President*, directed by Rob Reiner, revolves around a fictitious American President, Andrew Shepherd (Michael Douglas), who happens to be a widower. When President Shepherd tries to date a lobbyist (Annette Bening), he realizes how much he is a captive of his own position

This Old House

Cinematographer John Seale, ACS and production designer Lilly Kilvert bring life and warmth to the White House in director Rob Reiner's romance *The American President*.

by Alex McGregor



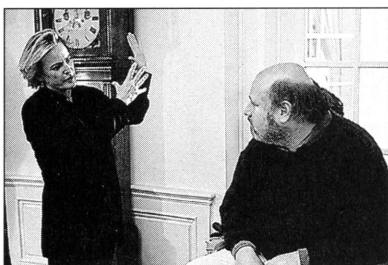
and power and, more specifically, the White House.

To capture the White House on celluloid and make it appear believable, cinematographer John Seale, ACS and production designer Lilly Kilvert worked together from the moment they were both hired.

Given that access to the actual White House was severely limited and that a straightforward reconstruction was beyond budget, Kilvert set about "evoking the White House," as she describes it, on Sony's sound stages in Culver City. The sets were so big that Kilvert quickly became concerned that there wouldn't be enough room for crew, let alone the lights.

"The most difficult thing was the size of the stages," remembers Kilvert. "We were like sardines."

Initially Kilvert faxed the plans of her designs to Seale at his



home in Australia. "Lilly was sending me a lot of information about the amount of space that I would have, or wouldn't have, to move in and light on such sets as the perspective exterior and the outside walk way," says Seale. "So I was pretty much lighting it in my mind before I even left home. When I arrived on set it was all very familiar."

The White House itself becomes a character in the film; it is with the President wherever he goes. For Kilvert, the White House becomes more prison than building. "I used to refer to the film not as *The American President* but 'The American Prisoner,'" she says. "The President is probably the most powerful man in the Western world and he can't go outside. He

is trapped by the way society sees him."

Although Kilvert had some experience with putting the White House in a film before — she was the production designer for the Clint Eastwood film *In the Line of Fire*, in which the White House appeared fleetingly in the background — that experience was not the reason she was hired for *The American President*. Her association with Reiner dates back to designing *The Sure Thing*; their busy schedules kept the designer and director from working together again until now. Most recently Kilvert was nominated for an Academy Award for her work on *Legends of the Fall*.

On *The American President* Kilvert not only had to deal with



Above: *The Oval Office* was re-created by production designer Kilvert (at bottom left with director Reiner), but the room's unusual curved architecture played havoc with cinematographer Seale (top left with meter) and his lighting, sending shadows chasing around the set.

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the White House itself but also with people's perceptions of it, a problem common to production designers.

Research for the production's design started with an extensive White House tour, which Kilvert took with Reiner in late March. They were allowed to measure and photograph "pretty much everything" in the public area. The group was also permitted to continue their tour upstairs to the normally off-limits First Family private residence, but were not allowed to measure or photograph anything there.

"The highlight of the tour," recounts Kilvert, "was Bill Clinton appearing in the corridor while we were walking through upstairs. He found enough time to stop and chat for 45 minutes." (What comments President Clinton had about the story or the film were off the record and have not yet been leaked.)

After completing her research, which included combing through a small library's worth of books about a house that is really a national monument, Kilvert had to decide which version of the White House to recreate. The building was constructed bit by bit over a period of 200 years, and each President has left his own imprint on it; in many ways, a study of the building is a study of American government. So there wasn't just one White House but a different version for every President.

"We picked the White House of the JFK years — Jackie's White House," Kilvert says. "[After] Jackie's famous tour of the White House she went back to Jefferson's original conception, in its simplest, purest form. So we tried to evoke an American feel."

Jackie's White House might be the most pleasing aesthetically but it wasn't that easy technically. Federalist style means tall and narrow, which makes for small corridors. Kilvert herself had been surprised at how cramped the

actual interiors were. "You'd be amazed to see how low the ceilings are," she says, "how rabbit warren-like are the rooms. In the bedroom, if you made a wrong turn at the sofa you would land on the bed. My bedroom is bigger. I didn't want to show it like that, so we dropped the floor or sometimes

"Even though [the Oval Office] is a very familiar room we had a lot of license in there," says Seale. "There are not many people who have been in [that room,] so we could cheat."

raised the roof to make sure we could see more, see all the cornices, and so we could see the floor and the ceiling in the same shot."

The team did not attempt an inch-by-inch reconstruction of the White House interiors, but worked instead for a close approximation of the dimensions, adjusting them for technical and design ideas. Given the amount of books and photos available, it was easier to be more faithful in building the downstairs public area of the White House. While Kilvert was only allowed to make rough notes during her short time in the private residence, she thinks that what is realized on screen is very close to the reality.

"We could more or less work out the measurements of the private residence just from the downstairs floor plan. We know the center hallway is accurate. We know which rooms are where, but we don't know if the bathroom is completely accurate. The details that we made up were the color of the wallpaper, the color of the carpet, things like that. The private dining room is one of the most beautiful rooms I have ever seen, and that is accurate."

Other details were designed to specifically reflect the character of the fictional President. "Most presidents have wives, but our President was a widower, so we wanted his bed to have a more masculine touch."

The design and camera departments had to work most

closely together in matching the interiors and exteriors as the President and entourage sweep from one engagement to the next. The opening shot of the film, for instance, was filmed on four different soundstages. Not being able to shoot around the real White House or in Washington meant there was little margin for error. A scene in which the President takes a night drive was particularly difficult without a set or location to fall back on; in the end, Kilvert built the extensions of the White House gate and the rest was filmed in Los Angeles.

"The shot is meant to have them driving in the rain with rear projection," explains Seale. "We had to shoot the background plate, so we backlit the rain and we had a giant TransLight of Lafayette Park. It was terrifying because without Washington all around us we thought that we'd never be able to do it. But because of the rain and because we were in a stretch limo with small windows we [got away] with it."

Seale was in Malaysia shooting another Castle Rock film, *Beyond Rangoon*, when Reiner called him for *The American President*. "Don't you want an American for this?" Seale recalls asking. "There are so many flags in this story."

Although Seale made his reputation as a cinematographer by shooting mostly outdoors in the harsh Australian light, he has proven himself to be equally adept at contemporary urban landscapes, and has compiled a list of credits that include the Academy Award-nominated *Witness* and *Rain Man*, and more recently, *The Firm* and *The Paper*. Seale, who is currently shooting *The English Patient* in Tunisia and Italy for British director Anthony Mingalla, prefers a variety of work and challenges. "If you were doing interiors all the time, you'd end up biting yourself and going mad," he says. "So I like to split up my films. A change of location gives you new problems to solve. It gives you something to look forward to."

The shooting of *The American President* would seem to be fairly straightforward — the interi-

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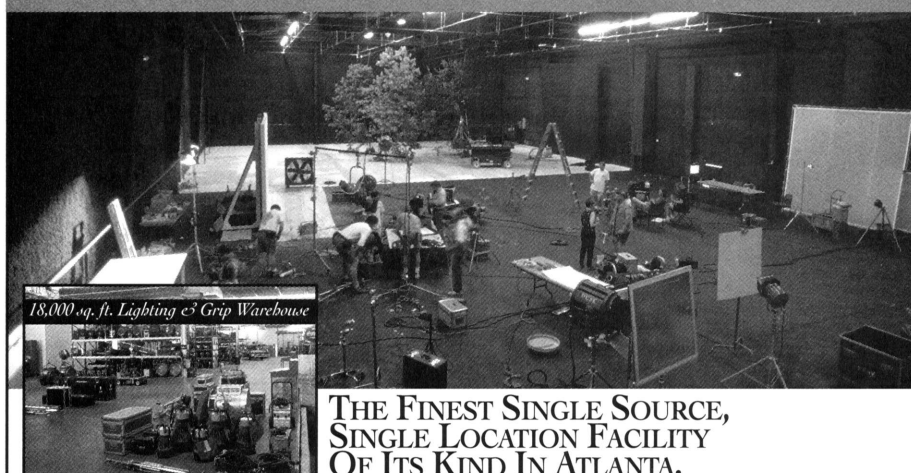
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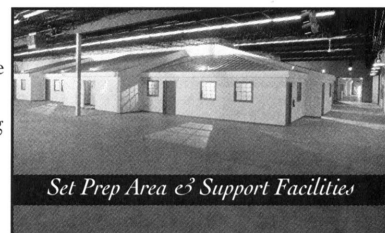
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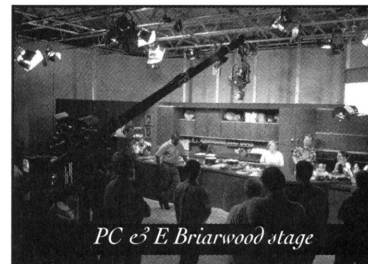
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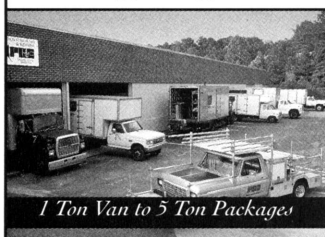
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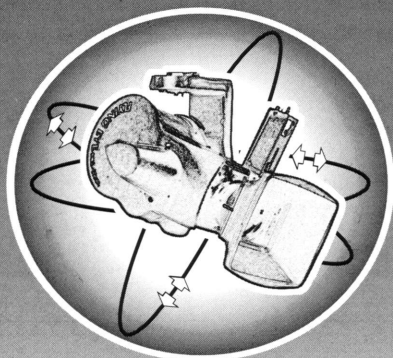


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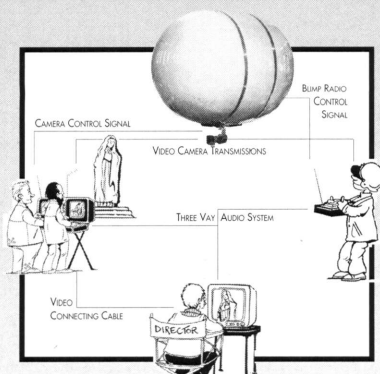
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ors are very controlled and the exteriors minimal. Seale explains that a lot of his preproduction comes in reading the script over and over again. It helped, he admits, to have a big enough budget to cover all your lighting needs.

The most difficult location to shoot proved to be the most familiar of them all, the Oval Office. Much of the story plays through and in the hallowed room, but never at the same time of day. Matching the light with the different times of day proved to be the easy part, simply because for most people the image of the Oval Office is fixed.

"Even though it is a very familiar room we had a lot of license in there," says Seale. "There are not many people who have been in the Oval Office, so we could cheat. For instance, the real Oval Office doesn't get the sun across the desk in the middle of the day in winter, which is how we shot it in one scene."

Controlling the light in a room which has three large bay windows at one end, a fireplace along one wall and nothing on the other walls was always going to be awkward, especially since the walls are curved, making it difficult to photograph — without corners, one can easily lose one's sense of position, and worse, the light bounces off the walls even more than normal.

"The first time we were in there it was out of control," admits Seale. "Panicsville. Wherever we put a light there were tons of boom shadows coming out of everywhere. You couldn't drop shadows off the wall — they kept coming around after you. We ended up having to cut holes in the wall. We wrecked the set and rebuilt it a couple of times to give us cleaner light without a lot of boom shadows. I also used a lot of lights on the floor."

The room's largest natural light source, the bay windows, proved to be Seale's biggest handicap. "We had problems with the windows catching reflections. We were shooting long masters and long close-ups, and there was a fair bit of camera movement. We found that we couldn't move more than

three feet without catching the light in the window. The camera was like a magnet to reflections of the window."

Seale also has vivid memories of another familiar White House antechamber, the Press Room, from his White House tour. "They were so excited to show us the Press Room because of the bullet holes in the window," he recalls. "The interesting thing about the Press Room is that nobody had seen the reverse. Everybody knows the shot of the President and his spokesman, but nobody has shot the other way and seen the view from the podium. And it's a mess — plenty of old lights hanging from the ceiling and even step-ladders so photographers can get the high angles to shoot from."

When it came to setting the lights for the Presidential press conferences, Seale just copied shots from the nightly television news. "Most of the time I was happy to stand back and let the videotape guy light those scenes."

"I'm not a great believer in lighting something for lighting's sake," says Seale. "Smoke in the White House would have looked ridiculous. If anything, I tend towards a 'real' lighting style, trying to make the look as smooth and as real as possible."

While Seale admits that when he started on *The American President* he was expecting "reality to come pounding down through the door," he now talks about it as one of his most straightforward shoots. He gives most of the credit to Reiner, who managed to bring the film in a week ahead of schedule. Although Seale has a reputation as a fast lighter, he believes the speed of the shoot had more to do with Reiner's style than with his own quickness.

"It was all very controlled because Rob was prepared and knew what he wanted. He kept it down to the shots that he needed and kept it all hammering along."

THE RELATIONSHIP BETWEEN DIRECTOR of photography and gaffer is subjective, dynamic, and critical. The gaffer's role in film production is wrought with interpersonal, political and administrative considerations, all contributing to the success or failure of a production. When the relationship works, it can establish the rapport that binds the entire crew together.

Michael Moyer, who has worked with such esteemed cinematographers as John Bailey, ASC (*Nobody's Fool*, *In the Line of Fire*, *Groundhog Day*, and *The Accidental Tourist*); Steven Poster, ASC (*The Cemetery Club* and *Life Stinks*); and Luciano Tovoli (*Single White Female*), describes the gaffer's position as being a "terminal job" — an end unto itself.

"To do a job as a gaffer, you have to view yourself in a terminal position — you have risen as far as you can go," he stresses. "If you decide to become a director of photography, you have to do it. You can't remain a gaffer because you can't gaff successfully if you're walking around thinking, 'I could have done this better.' You have to approach the job with the proper mind-set or you're dead. Once you lose sight of your loyalty, then you're not doing a good job anymore."

Norman Glasser, who has worked with Vilmos Zsigmond, ASC (on *Maverick*, *Intersection*, *Sliver* and *Assassins*) and Woody Omens, ASC (on *Coming to America*, *Harlem Nights*, and *Boomerang*), adds, "I think the gaffer has one of the biggest responsibilities on the set overall. When it comes to a setup, the [producers] approach the gaffer and ask, 'How long is it going to take?' You're responsible for probably the largest number of people and the most expensive package on set, besides camera. You have a lot of responsibility thrown on your shoulders.

"You have to use a lot of diplomacy as a gaffer. Not only are

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Five lighting technicians expound on the cinematographer/gaffer illumination equation.

by Chris Probst

you dealing with the cameraman, but you're dealing with production, unit managers, executive producers, and first assistant directors, and you're trying to keep the flow on the set."

The gaffer's goal is the realization of the director's vision through the guidance and decisions of the director of photography. Executing that vision — specifically the light rendering and vi-

"You should always have the answer; you should have already thought of it and have the information. As soon as [the cinematographer] asks the question, the answer is more about assuring him that, 'Yes, it has been taken care of.'"

— Harry C. Box

sual tone or mood of the imagery — rests on the effective communication between cinematographer and gaffer.

"There's a certain amount of basic information you have to get," says gaffer Harry C. Box, who works in the realm of independent film production and is the author of the highly regarded *Set Lighting Technician's Handbook*. "For instance, where is the camera going to be and how much are we going to see? But depending on how long you have been working with the cinematographer and the particular production, and how much talking you did in preproduction concerning the needs of the script, you may or may not need as much information at that point."

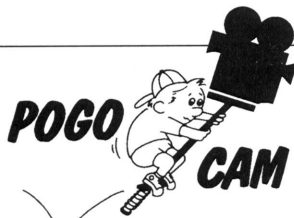
"A lot of times the cinematographer has an idea of what he

pictures in his mind, but doesn't know how to obtain it," says Glasser. "They may have a thought and then rely upon the gaffer to put that into a working process."

"I try to get their idea, basically, and then set out to achieve it," suggests Claudio Miranda, gaffer for cinematographers Derek Wolski on *The Crow* and *Crimson Tide* and Harris Savides on commercials spots for Nike and Levi's. "The way I work with Derek is completely different than how I do with Harris. They each give me a general feeling, we talk about fixtures, and see if we are on the right track, and I then fill in the rest of the blanks. Derek usually has a really good idea in his head already, but he lights very differently than Harris, who also has great ideas but likes a lot of input from his gaffer. You have to adapt your methods to the cinematographer."

Establishing a rapport and communicative ease is of utmost importance for any working relationship. Bill O'Leary, longtime gaffer for Roger Deakins, ASC, BSC (*Barton Fink*, *The Hudsucker Proxy*, *The Shawshank Redemption*), states, "The key to [working with Roger] is his personality — we get along. Obviously, I have a lot of respect for him, his whole way of working, and our tastes sync up well — the idea of everything being naturalistic and motivated."

Explains Moyer, "The trick to being a good gaffer is knowing whom you work for. That sounds like a simple concept, but I've spent a lot of years listening to people who think they work for producers, directors or first ADs, and are only employed by the cameraman, period. If the cinematographer wants them, he'll fight for them — he'll get [the gaffer] what



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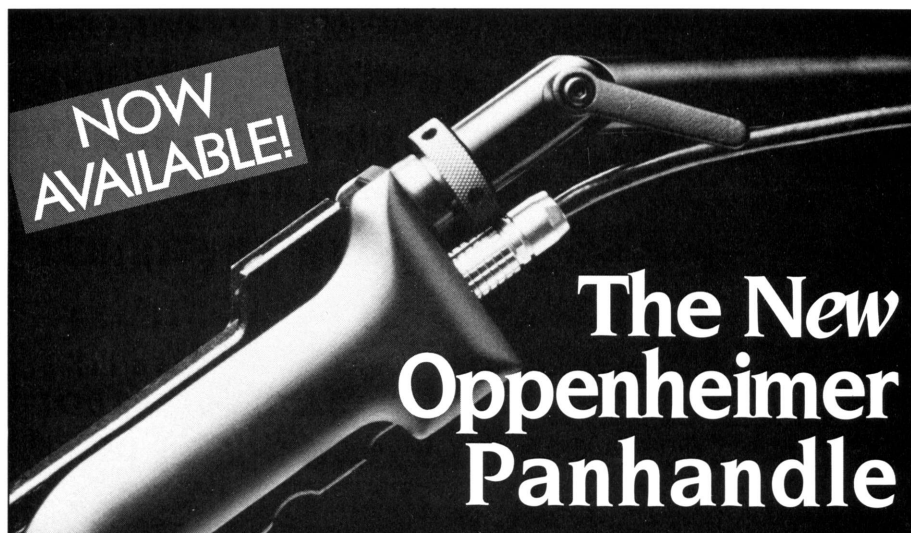
To properly serve the needs of the director of photography, the gaffer needs to be flexible and prepared for whatever situation is presented. This requires thorough planning, attention to scheduling, and coordination with production, script supervision and, of course, the cinematographer and the lighting/grip crew.

"I have to be in the game," says Moyer. "I watch the script and work with the script supervisor and the assistant directors, so that we all know we are not lighting a day scene when it should be night. We're not lighting a scene that's completely different when it's only supposed to be five minutes later. I'm there to reinforce that. I'm not there to keep my mouth shut."

Miranda agrees. "You need the cooperation and support of production and an environment where everyone collaborates to meet a common goal. As long as everyone is talking and collaborating, and the producers are supportive, it's an ideal environment."

Often the career of a director of photography is built on a reputation for speed and efficiency. The gaffer's foresight and preparedness influences this factor appreciably. "I believe the movie is made in prep," offers Moyer. "The company can never see you lay cable. If they do, you're putting yourself behind the eight-ball from that point on. You always have to have a pre-rigger before you and after you. Pre-rigging is the backbone of all good lighting, especially in motion pictures."

"Most cinematographers are as fast as the director," he continues. "As quick as they get information, they can put the shots together. Just as the director of photography has to give the director so



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much time on the set — I'd say 50 minutes in an hour — I have to give him so much time in which he's able to light where he's not waiting for cable to be run, lamps to be hung, or physical problems to be overcome, and that's all done in pre-lighting. The rigging gaffer is the key to being able to make a schedule."

For Miranda and Wolski's lighting of the submarine interiors on *Crimson Tide*, Miranda virtually had to design the lighting into the constructed sets as practical

"I'm employed by the director of photography. Not by studios, not by producers, not by directors, not by best friends, but by the cinematographer."

— Michael Moyer

sources. "On *Crimson Tide* pretty much every single fluorescent was all boosted up. We made ballasts and every lamp fixture was recreated," reveals Miranda. "We made a lot of custom lights. I talked to Kino Flo and they made us some really thin fluorescent lights. I have my own lighting company called Decasource, and I used the Deca — ten panels with about 300 lights, similar to a Dino. I had six weeks of preproduction because the set was up on 40' by 40' pitch-and-roll gimble," says Miranda. "Sometimes you'd set your stands in, and then they'd move the gimble, and your key lights would move because everyone would be leaning. Everything had to be bolted down, but even when the actors were standing on their marks their heads weren't on their marks."

A growing trend in cinematography is to incorporate the use of dimmer boards for numerous sources, lending greater control and diversity to the director of photography in manipulating the lighting. Jost Vacano, ASC's stage lighting on *Showgirls* (see *Beyond the Frame*, this issue), Roger Deakins' immense prison cell-block set on *The Shawshank Redemp-*

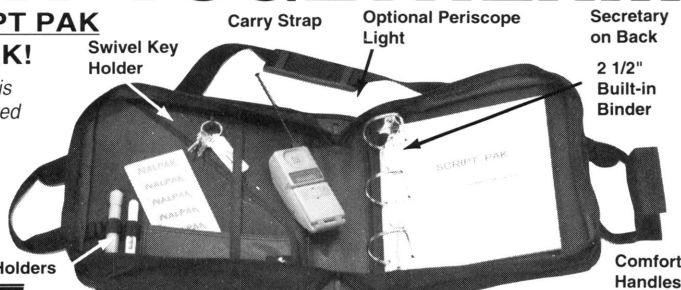
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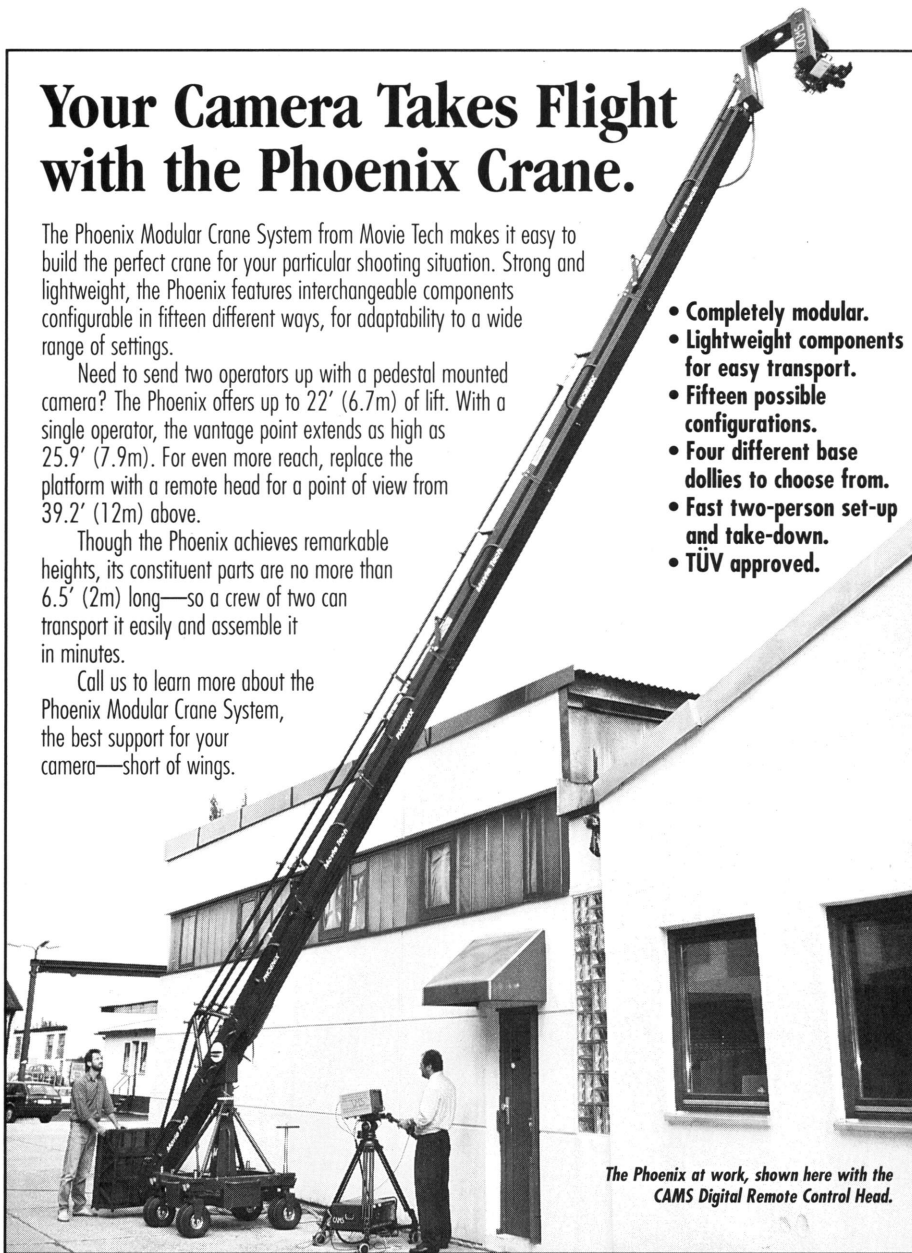
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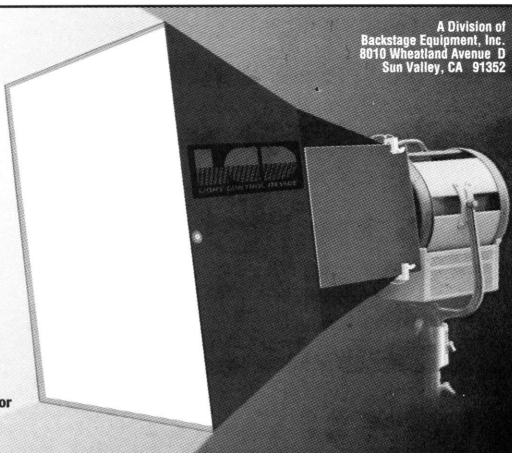
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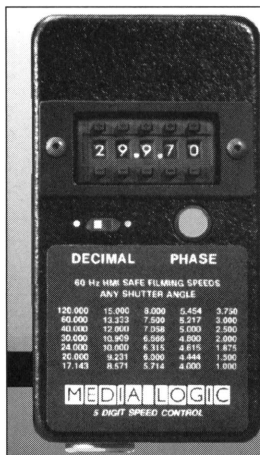
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tion, and Stephen Goldblatt, ASC's towering circus-ring sets in *Batman Forever* all utilized dimmer board controllers for easy switching and quick adjustments to the lighting.

Miranda offered Wolski similar options for the submarine sets on *Crimson Tide*. "I had a board that could handle a couple hundred dimmers that basically controlled the entire set," he explains. "If we were killing a part of the sub's lighting, the dimmer operator would control how it was killed. All of the electronic instruments and monitors were also controlled by dimmer and there were two channels per fluorescent fixture so that we could give a realistic flicker without the whole lamp flickering. We were trying to giving each room a different tone — sonar was blue, missile control was red, and the radio room was green. We got real fixtures from the Navy. Some rooms on a real sub actually have thinner bulbs with a different color."

Utilizing flexible lighting and adaptive rigging may aid efficiency as well as providing greater control in continuity from scene to scene. Glasser notes that matching is a crucial duty of the gaffer -- for instance, relieving the cinematographer of the burden of checking HMIs for proper color balance. "It's important to keep track of that as a gaffer — is it supposed to be dusk, or afternoon, or early evening? You also have to remembering which gels go on which lights so everything works in continuity. Color control is very important when you're using HMIs. You have to be on top of that because a lot of them have green, and you may be balancing to fluorescents, or daylight, or a late-afternoon light. Depending on how new the equipment is and how good the bulbs are, or how busy it is at the studio and what equipment you're getting, what have to balance them. I try to test most HMIs before we load them and get the color temperatures close to each other."

Having the technical considerations of the lighting well under wraps is critical in developing a rapport with the director of photography. "You should always have the answer, you should have

already thought of it, and have the information," stresses Box. "As soon as he asks the question, the answer is more about assuring him that, 'Yes, it has been taken care of, it has been looked at.' It's definitely

"I believe the movie is made in prep. The company can never see you lay cable. If they do, you're putting yourself behind the eight-ball from that point on."

— Michael Moyer

an important part in terms of the whole courtship with a new cinematographer. In the first week, every time they ask a question like that, it's partly because they're worried that the light may be going a little green, but also because they want to know whether you are on top of it. If you have already have checked it and can give them an answer, then you can establish confidence and build from there."

"My job is to deliver accurate data to the cinematographer," relates Moyer. "I have to build a key to a certain stop, and with the different stocks that we shoot in a day, your eye isn't going to tell you the difference between an f2.8 at 200 ASA and an f2.8 at 500 ASA — your eye can't adjust that fast. Yes, I have an eye, but I believe the eye is utilized after the basic level is set. Then it's balanced off the key."

Often gaffers are faced with new or inexperienced cinematographers. "When you work with a younger or less experienced person," Moyer observes, "your experience comes into the translation of a mood. If he just tells you a mood, you should be able to deliver it. That's the craft. Then you find tricks for it. I refer to paintings or famous photographs — classical black-and-white photography — or other films. I use tricks like that so people can be more specific in what they want. I always search for a visual language. The successful gaffer reads a situation rapidly and adjusts to it, determining a language as early as possible, then cre-

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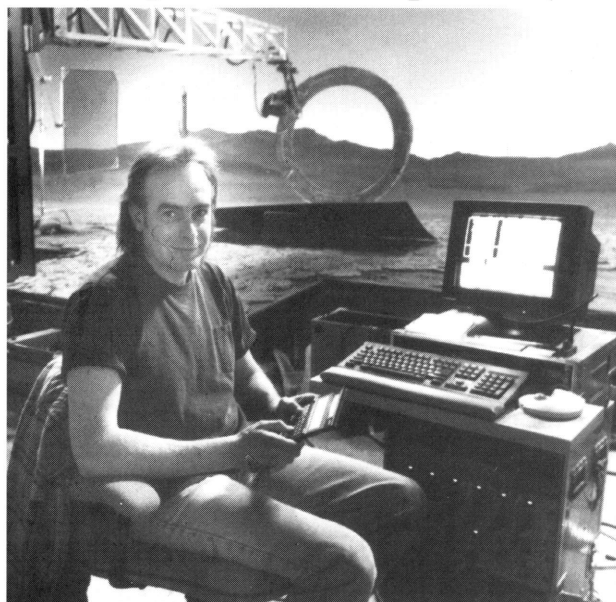


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ating a shorthand so that I can work ahead of the cinematographer, working on the background while he's working on the foreground or setting a shot."

In the independent feature realm, Box often has little pre-production time and a less-experienced cinematographer who has difficulty expressing his or her ideas. "Trying to get them to communicate and to some extent get them to part with their egos and reveal what they want is a delicate situation. If they are insecure about a setup and don't know what they want or don't know how to describe what they want, you're navigating your way through this political situation trying to suggest things to them. They may not know what light to call for, so they insist on perhaps the wrong light, demanding you use the light they say. You have to do what they say because you're treading on ego."

"Having a fixture in place, ready, and on before they walk on a set, however, is a good way to offer suggestions. I end up sneaking lights, turning them on and saying, 'Let me show you this.' The trick to that is that the grips and electricians have to have their act together. If you don't present it immediately the right way — no light spilling on a wall, diffusion in place and light focused — you may not be able to sell him on it."

"Every single person in this industry is here for strokes," adds Moyer. "I am convinced that everybody would work for very little money if they were only appreciated, if people were grateful for their contribution to the project. Therefore, the ideal working situation for me is one where I'm appreciated and where I'm proud to be involved. There's a script I'm proud to be working on, a cinematographer I'm proud to be standing next to, and a company that is grateful for my contribution to the film. A lot of people say it's only for the money, but I don't believe that. I'm convinced that any of us would work for any amount of money if the strokes were right. That's human nature." ✱

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"Island" Adventures

by Mary Hardesty

It's not uncommon for in-demand cinematographers to do a great deal of traveling, but cinematographer-turned-director Bruce Dorn and his director of photography, Jim Weisiger, are the quintessential frequent flyers. Experts when it comes to shooting in extreme conditions and distant locations, Dorn and Weisiger have literally traveled to the ends of the earth during these past few years to capture great shots for the Re/Max Realty campaigns.

Puerto Aventuras, Mexico and the Matanuska Glacier in Alaska were just two of the sites selected for the 1995 Re/Max campaign. "In the 'Island' spot, which we shot early in June, our castaway is trying all sorts of ways to sell his island home, including sending messages in a bottle," explains Dorn, who still takes an active role in positioning the camera, as well as selecting lenses and stock.

Achieving the look of an isolated island in the middle of an ocean involved a great deal of planning and location scouting. Cancun location manager Mark Pitman was able to secure a coral head that was conveniently located just off a private beach. The water between the beach and the coral island was no more than ten feet deep and had a sandy bottom covering a hard coral base. The proverbial deserted island was made from scratch by covering the coral head with black plastic and bringing in hundreds of bags of sand by barge.

"We made the palm tree bases from PVC plastic sewer pipe which we decorated with lines of fiberglass material," Dorn reveals. "We covered those with fresh palm fronds from the nearby jungle."

Metal parallels were put in the water to get a camera position that allowed the crew to work off shore and create a "place in the middle of nowhere" look while still remaining close to the island. Weisiger used an Arri III package and primarily Kodak 5245 stock.

"We took along a roll of 96 in case we needed to shoot sunsets," he says. The team rented everything from

"We were in the water on our metal stands when an electrical storm came up. We saw the water funnel start to form and spawn two other funnel clouds."

Otto Nemenz before leaving for the location. "In Mexico City there's a Panavision package, but we were shooting over in Cancun and wanted to make sure we had everything."

Working in a sandy, salt-water environment is never pleasant from a cinematographer's point of view, and special underwater effects work only increases the potential for going over budget and/or time, but Dorn and his crew were able to get the footage they needed in only two shooting days.

"In this spot the Re/Max hot air balloon had to come up from the sea," explains Weisiger, who used a polarizer 85 and neutral grads to knock down the sky and capture more clouds. "We accomplished this 'boiling water' look with some time-consuming underwater rigging and the submerging of compressed air cylinders with electronically-fired release triggers."

As if the combination of special effects, sand and salt water wasn't enough, the location just happened to be in the path of an ocean-bound tornado.



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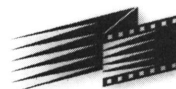
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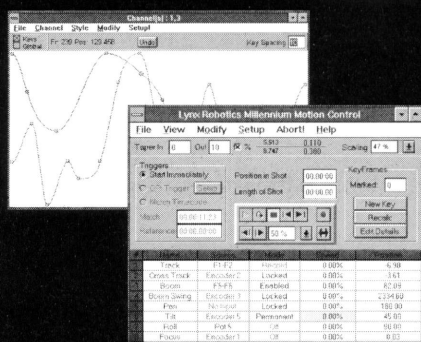
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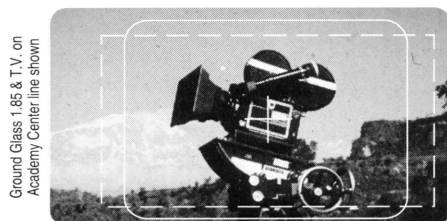
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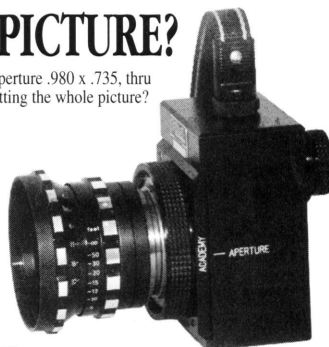
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"The funnel had to be at least 3,000 feet high," comments Dorn. "We were in the water on our metal stands when this electrical storm came up. We saw the water funnel start to form and spawn two other funnel clouds." Dorn and Weisiger were able to crank off some impressive stock footage before heading for shore.

"We all jumped into boats and paddled furiously, leaving the equipment behind because there was no time," says the director, who luckily had thought to put splash guards on everything. "Of course, the minute you abandon ship, the storm diverts, so all we lost was good shooting light."

Not only was the crew chased by water funnels, but on their way home their van was run off the road by angry locals.

"We thought it was a heist when all these Toyotas forced us off the road," recalls Dorn, who realized a few minutes later that the cars were actually taxis. "Apparently, the local taxi union didn't like the fact that we used a rented Suburban, and felt we should ride in a Toyota to and from the location." Dorn and his crew all loaded into the locally-rented camera van and headed for the airport, leaving the location manager to pay off the angry mob. "They didn't seem to have a problem with us, they just didn't like the Suburban. As we were leaving we saw the police heading in the direction of the conflict."

Whether they were going to break up the argument or get in on the payment, Dorn can only speculate.

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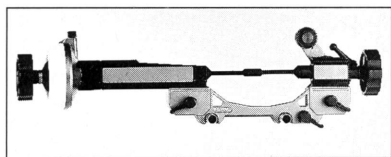
Cinematographer: Jim Weisiger

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compiled by Marji Rhea



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The AJ-D750 studio editing VTR offers two hours of recording, frame-accurate editing, jog/shuttle capability, insert/assemble editing, digital slow motion, and LTC/VITC time code recording/playback. Other key features include two channels of PCM audio, digital component serial SMPTE 259M (optional) and RS-422A serial interface, all in a four-rack unit package.

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Motion Analysis Corporation and Lamb & Company have collaborated on a project to bridge the gap between optical motion capture data and popular animation software packages. The development allows animators to speed production and capitalize on the highly realistic effects possible with motion capture by providing easy data transfer between Motion Analysis systems and all major computer animation products on the market.

Lamb & Company's new LambSoft Motion Viewer will be available for inclusion in the Motion Analysis ExpertVision HiRES optical tracking system. ExpertVision HiRES, a flexible, tether-free optical motion capture system, provides movement data used for creating smooth, highly realistic 3-D character animation. The LambSoft Motion Viewer enables animators to view, filter, edit keyframe and export motion data with precision. The complete system effectively creates a full 3-D keyframeable animation environment for the manipulation of all the data captured by the ExpertVision HiRES system.

Combined with the LambSoft Motion Viewer, it includes a complete data acquisition system with cameras, tracking software and sensors, data editing and display. The system operates with SGI and Sun workstations, and is compatible with all major 3-D animation

systems on the market, including Alias Wavefront, SoftImage/Microsoft, Side Effects Prisms, Autodesk 3D Studio, and Nichimen Graphics.

Motion Analysis Corporation, (707) 579-6500, FAX (707) 526-0629.



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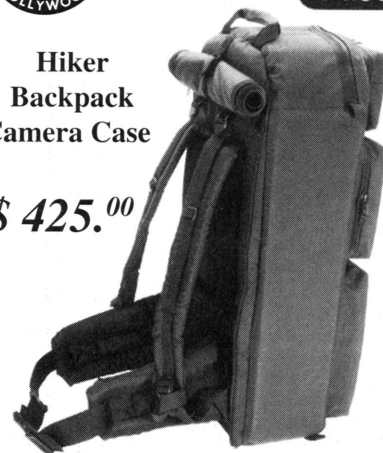


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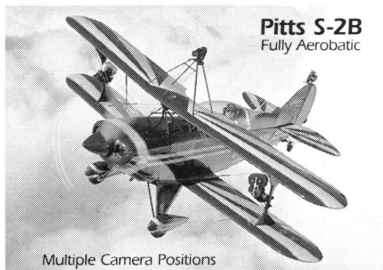
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allows users to create an infinite variety of human figures which can be posed, rendered with surface textures and multiple lights, and easily incorporated into artwork. Poser is designed to work closely with 2-D and 3-D design applications such as Fractal Design Painter, Adobe Photoshop, Ray Dream Designer, Macromedia Director, and many other programs.

Poser provides male, female and stylized models that can be moved, modified, shaped into any pose and viewed from any angle, and offers body sizes ranging from infant to adult to superhero. Individual body parts can be adjusted in size and dimension, and figures can be manipulated as easily as a wooden model. The user interface is derived from Fractal Design Painter, the natural-media paint, image-editing and video/animation application. The two programs work extremely well together, especially when using Poser's models in Painter's tracing layer.

For Photoshop and Painter users, Poser models provide a great foundation for the application of filters and special effects. Poser is also a valuable tool for creating storyboards and planning photo shoots. Poser models are quick to manipulate and images can be used as a backdrop to identify props or scene content.

The program also makes it possible to use the human form in 3-D applications. Figures can be placed into any pose and exported into applications like Ray Dream Designer, Alias Sketch, Strata Vision 3D and Infini-D.

Fractal Design Corporation,
(408) 688-5300, Jon_Bass@fractal.com.

Animation Application

Cambridge Animation Systems' Animo Version 1.6 adds automated paint and color styling function to the 2-D cartoon animation software and is available on PCs and Hewlett-Packard RISC workstations. It will also be available on Silicon Graphics workstations in the near future.

New software code in Animo V1.6 speeds the animation process by automating sophisticated shading, blending and color styling that must usually be done manually. The following functions have been fully automated within V1.6: color blending, overlay matting, ink and paint gap fixing, post-paint-

ing color substitution, and layout, background and paint layer registration. V1.6 also offers real-time replay of animation from disk and improved self-trace line handling, line thickening and line scanning.

Animo V1.6 is designed to provide cost-effective animation solutions for studios, special effects and postproduction houses, commercial production companies, and game developers. The system combines the fluid movement of traditional animation with time-saving automation and special effects. The complete system includes Animo Studio, a set of tools that manages scanning, ink and paint, and specialized functions such as resolution-independent painting, special effects, compositing, scene layout, camera movements, and previewing; Animator, for realistic character animation; Lipsync; Render; and SFX, a set of compositing and filtering tools for keying and image manipulation effects.

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Early American Features on Video

Kino On Video is releasing its "First American Features 1912-1918" series, five examples of pre-World War I cinema digitally remastered from archive prints and featuring newly-recorded musical scores.

DeMille's 1915 film *The Cheat* tells the story of a Long Island society woman who borrows money from a wealthy Asian (played by Sessue Hayakawa) after she gambles away charity funds. Although she repays the money before rendering the services agreed upon, the Asian insists on maintaining the agreement, and things get ugly when she refuses: he brands her on the shoulder, she shoots him, her husband takes the blame, etc. The video also features the short *A Girl's Folly*, Maurice Tourneur's comic look at life and love behind the scenes of a 1917 movie studio.

1916's *Civilization*, an anti-war film which was instrumental in getting President Wilson re-elected, is set in a mythical Teutonic kingdom whose king enters a horrific war despite the pleadings of a pacifist advisor. The film was one of the first to depict submarine warfare, and in its day was more successful than D.W. Griffith's *Intolerance*, probably because of a happy ending helped along by divine intervention.

The Manger and the Cross (1912), the first Biblical epic to be filmed on location in the Holy Land, re-enacts the life of Christ in a straightforward manner. The film's success helped to change the image of moviemaking from tawdry popular entertainment to a more respected art.

Regeneration (1915), about a New York City Irish hoodlum and the social worker who reforms him, was filmed on location in the Bowery and is peopled with real-life gangsters and riff-raff. The tape also includes Thomas Edison's 1910 short *The Police Force of New York City*.

1913's *Traffic In Souls* was the first and best-known of the "White Slavery Films" that purported to expose the horrors of forced prostitution. The idea for the movie came from the president of the Immigrant Girls' Home in New York City, who was looking for a way to warn young, illiterate immigrant women of "traffickers." Although the film was more exploitive than realistic, it was adopted by immigration officials, who showed it to unaccompanied girls onboard steamers, at quarantine stations, and at Ellis Island. Also shot on location, it offers another glimpse of life in New York before the Great War.

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Points East

Shooting Digital

by Brooke Comer

Deborah Dobski didn't intend to shoot her first feature on Sony's DVW-700 WS Digital Betacam. It just worked out that way, and she's glad. Dobski, formerly an assistant professor and acting chairman of Columbia University's Film Division, has made a number of short films, including *Hitbound*, which screened at the Ann Arbor Film Festival, and *The Stranger*, which received an award at the Houston Film & Video Festival. When she optioned Harlem Renaissance writer Claude McKay's book *Banana Bottom*, she realized she'd have a better shot at getting a deal that allowed her to direct it if she already had another film under her belt. So she set about making *Dying is Easy*, a romantic coming-of-age comedy.

"When I started trying to package it, I found out there wasn't enough money to shoot it in 35mm," Dobski explains. The director examined her options: she could either find a cameraperson who owned a camera and was willing to work on a deferred plan, or shoot on 16mm. "I definitely did not want to shoot on 16mm," she recalls. Then she took a look at Digital Betacam and was impressed. She called Sony, was invited to participate in a test program, received a DVW-700 WS camera, and the rest is history. "I fell in love," she exclaims. "The wide screen allowed me to compose beautiful shots, an opportunity I wouldn't have had in 16mm. And while it's not film, it's not video either. It's its own little experience."

Dobski has decided to keep her images digital all the way through post. "First we'll edit on Avid," she outlines, "which will give us our computer print-out of sound and picture. As soon as I have some scenes in assembly, we'll do postproduction music for the open and close. Obviously, we can't do the in-between music till we have a rough cut. Then we'll procure the sound reels, go to online, and do the mix."

Dobski knew that her cinematographer, Sabrina Tubio-Cid, wouldn't have time to do extensive lighting setups; the crew worked 16-hour days for 16 days to complete *Dying is Easy*, "and you know if you're going to shoot that much material in that little time that you have to be well organized and limit yourself to less-complicated shots." Dobski went over the script carefully, storyboarded every scene, and did extensive scouting and prep to make sure no time was wasted once production began.

When Dobski and Tubio-Cid got a briefing on the DVW-700 WS from Sony's tech support group, the director was pleased to find that the camera responded beyond the flat lighting common to video. "An overcast day is usually a great video day," says Dobski, "but this camera wants film-style lighting. Since our intention was to go to a film transfer for release, we shot real blacks and real whites in order to get the same contrast ratio as film. We found that even on sunny days, the picture looked great, with nice shadows. The colors were what surprised me; they were spectacular. Truly mind-boggling — even reds."

Dobski, Tubio-Cid, and gaffers Solomon Joseph and John Scholz worked together to scout locations and make lighting plans. She chose a simple lighting package, with 2K zip lights, two babies, three inkies, a half-dozen Omni lights and a half-dozen Tota lights. "We shot in the Marine Air Terminal at La Guardia Airport," says Dobski, "which was a challenge because we only had five hours to work there. So we approached it as simply as possible: we lit the frescoes, the extras and the main actors, and let the rest go. In most scenes, we used the fresnels for key lights on the actors, and the zips to bring up the background. But at the Marine Air Terminal, all we had were the Omni and Tota lights and a lot of cable."

The camera's computer set-up cards helped Dobski and her crew save time during production. "You can program in whatever you're using in terms of increasing gamma or skin tone," she explains. "There was one location we kept going back to, and we could simply reprogram what we'd done before." Dobski also found the camera's detailing abilities useful. "We had shots with buildings in the background. In one, you see Manhattan and the Brooklyn Bridge. A case like this, when you're tilting down and panning across to pick up a character walking across the bridge, is a risky situation in video, which doesn't always work well with diagonals. But the vertical and horizontal detailing took care of that problem."

If Dobski had been able to spend more time experimenting with the camera, "I would have found many more ways to use it. We didn't use half of what it would allow us to do on *Dying is Easy*: we were too busy learning what we needed to know for each scene. I began to learn what the camera liked; I'd look at locations and say, 'That's a Digital Betacam shot!'" While scouting in the Brooklyn Botanical Gardens she found such a location. "There was a tree that hung over the water like an umbrella. I knew we'd be able to see reflections in the water's surface, as well as see down into the water and see the green in the water. You couldn't get all that detail in most video cameras. It was interesting, because it really taught me to look at things differently."

Dobski was pleased with the effect that the DVW-700 WS's star filter lent to a night scene. "When you shoot candles, you get a star effect. We had a James Bond-type scene in which a young woman wears big earrings and necklaces that glimmer in the light. We put the star filter on and got shots of the beautiful little sparks they made."

Although *Banana Bottom*, Dobski's next film, will be shot on 35mm, she does plan to use the DVW-700 WS again. "I think there are certain kinds of films for which this camera is singularly appropriate," she says. "For instance, it has a unique way of reproducing color that would be perfect for a science-fiction film. In fact, that might be my next project."

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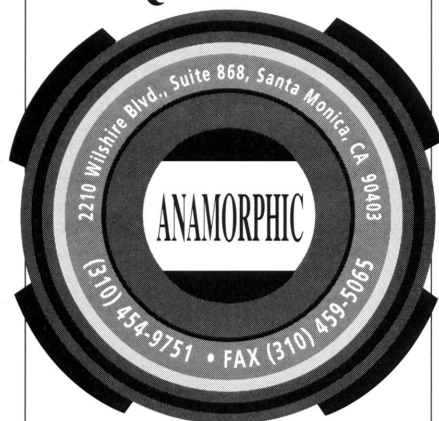
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Books in Review

by George Turner

A Song in the Dark

by Richard Barrios
Oxford University Press,
493 pps., paper \$21.95

The story of the wave of musicals that followed in the wake of the early Vitaphone productions is a fascinating one, and it is told here in considerable detail and a refreshing style.

Emerging from the fledgling new genre were many flops, some good shows and a few real jewels. Author Barrios makes no bones about which was which, as in his comments on MGM's *The Broadway Melody* of 1929: "A blast of fresh air, and viewed alongside its contemporaries — *Noah's Ark*, *Interference*, *In Old Arizona*, *The Singing Fool* — its superiority is unequivocal."

On the other hand, Oscar Hammerstein's *The Lottery Bride* (1930) was "... a calamity of impressive proportions. There were some worthy participants here, including Jeanette MacDonald, Joe E. Brown, and composer Rudolf Friml, all of them at the mercy of a boneheaded script that somehow managed to encompass a Norwegian dance marathon, an arranged marriage to a mail-order bride, a criminal on the lam, and a last-minute Arctic rescue by Zeppelin. ... [It] opened to an epically dreadful reception. ... He rightly tabs Universal's *Captain of the Guard* (1930) "... an appalling pastiche of costume spectacle and music drama." He gives "the aberration that was *Golden Dawn*" the "Technicolor booby prize of the first musical wave."

Happily, it is noted that Cecil B. DeMille's bizarre *Madam Satan*, after a lame first half, delivers the goods as "one of the great examples of weirdness in American pop cinema: a twilight zone wherein musical comedy meets disaster epic. ... [Its] futuristic 'Ballet Mechanique' passes all description." Universal's *King of Jazz* (1930), staged by John Murray Anderson in Technicolor, is recognized as another strange but glorious classic, with wonderful performers (Jeanette Loff, Paul Whiteman, John Boles, Bing

Crosby), the first Technicolor cartoon sequence, Herman Rosse's magnificent sets, Hal Mohr's photography, Russell Markert's choreography, and Ferde Grofe's scoring. Ironically, both pictures were boxoffice duds because the public was already tiring of Broadway-style musical revues, two-color processes, and operetta singers. The next wave of musicals are better known and better loved, beginning in 1933 with *42nd Street*, *Flying Down to Rio*, and the successes that followed.

Hitchcock on Hitchcock: Selected Writings and Interviews

Edited by Sidney Gottlieb
University of California Press,
363 pps., cloth \$29.95

What, another Hitchcock book? Yes, but take heart: this is not another rehash of previous tomes. Most of it is Hitchcock in his own words from a short story written in 1917 and selected articles, speeches and interviews from 1927 until late in the director's life. Even allowing for the inevitable changes wrought by interviewers, editors, publicists, and "as told to" writers, this is the largest compendium of words *by* (rather than *about*) him since Francois Truffaut's indispensable 1967 tome *Hitchcock*.

Truffaut's book of interviews was labeled the "definitive study of Alfred Hitchcock," and to find fault with it is somewhat like examining the teeth of a presentation horse. To be frank, however, it was definitely compromised by being limited to Truffaut's particular interests and his insistence upon steering Hitchcock away from topics he obviously wanted to talk about. Many of the missing pieces can be found in the Gottlieb compilation.

A lot of important information emerges through the timeliness of contemporary articles as opposed to responses to interviewers of a later time. Understandably, the director's comments made in 1936 tell us more about, say,

Secret Agent than do his answers to questions asked 30 years later. Much of this exhumed material involves cinematography, visual effects, production design and other details of interest to *AC* readers.

The only bad news is that there are only eight pictures in the book. It is, nonetheless, a treasure for the Hitchcock connoisseur.

The Cinema of Max Ophuls: Magisterial Vision and the Figure of Woman

by Susan M. White

Columbia University Press,
384 pps., cloth \$59.50,
paper \$18.50

Winner of the Society for Cinema Studies Dissertation Award, this ambitious work on the German-born director is written from a distinctly feminist viewpoint. In addition to her main agenda of demonstrating the positioning of women in Ophuls' films, the author, who is associate professor of film and literature at the University of Arizona, also covers a lot of European and American film history from 1932 to 1955.

Ophuls (Opuls in his American films) directed some 200 plays and 21 features. His first six films were made in Germany, the rest in France, Italy, the Netherlands, Switzerland and the U.S. Most of his better known films are from France, including *De Mayerling à Sarajevo*, *La Ronde*, *Le Plaisir*, *Madame de...*, and his super-expensive swan song of 1955, *Lola Montes*. It is pleasant to read some kind words about his American films, especially *Caught*, which was not popular in 1949 but certainly holds up very well.

Anyone who can get past the postmodern writing style, some heavy doses of Freud and 60 pages of footnotes may suspect that a great deal more has been read into these films by White and the various colleagues she quotes than was ever intended. Among the many unexpected things we learn about Joan Fontaine's love of Louis Jourdan's music in *Letter from an Unknown Woman* is that "The 'sonorous envelope' in which Lisa surrounds herself, and which provides her 'happiest hours,' links Stefan with what Michel Chion has called the 'uterine night,' the voice of the mother sensed by the prenatal child enclosed within it."

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Ads set in light face type are **\$2 per word**. Text set in **bold face** or all capitals (except the first word of the ad and the advertiser's name) are **\$2.50 per word**. Remittance to cover cost must accompany copy. Send ad to **Classified Advertising, American Cinematographer, P.O. Box 2230, Hollywood, CA 90078**. Deadline for copy is the first week of the second month preceding the date of issue. Subject matter is limited to items and services pertaining to filmmaking and video production. Words used are subject to magazine style abbreviation. **Minimum amount per ad: \$20.**

EQUIPMENT FOR SALE

ARRIFLEX S Package: 3 prime lenses, 2 400' magazines, cable, case, \$2,000. VISUAL PURSUIT, INC. (216)647-4999.

CAMERA ASSISTANTS: Oak front boxes direct from woodshop. Save \$. Info: HOLLYWOODWORKS (818)891-5921.

SR2 pkg, 3 mags, Zeiss 10-100 T2, 2 batts, charger, sunshade handgrip, speedcontrol, Arri mattebox, mint condition, \$29,500 (212)226-5658 Fax (212)431-1471.

16-BL ACCESSORIES: Crystal sync units with variable speed \$325. Offset viewfinder \$600. Prime lens blimpousing excellent condition \$650. 400' magazines \$250. VISUAL PURSUIT, INC. (216)647-4999.

PRO VIDEO & FILM EQUIPMENT GROUP, THE USED EQUIPMENT SOURCE. (214)869-0011.

ARRIFLEX 16-BL Camera Package: 12x120 Angenieux Zoom Lens in blimpousing, matte box, 2-400' Magazines, new crystal sync unit with 5 speeds including variable, new battery with charger, cable, case (just serviced) \$5,500. Nagra 4.2 with case just serviced \$3,000. Both for \$8,200. VISUAL PURSUIT, INC. (216)647-4999.

S16 SR2 PL mount (Arri Conversion), video assist, 2 mags, batt/charger, etc (212)226-5658 Fax (212)431-1471.

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SR1 PKG, French, Zeiss 10-100 T3, 2 mags, mattebox, speedcontrol, sunshade 4 filters, 2 batteries, charger \$14,500, just serviced. (212)226-5658 Fax (212)431-1471.

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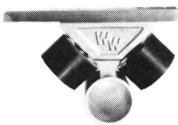
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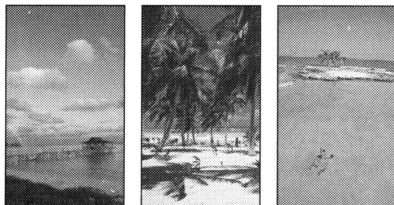
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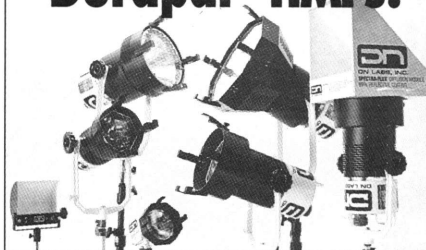
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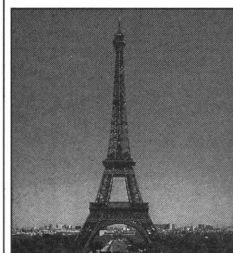


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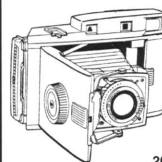
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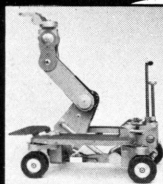
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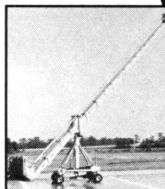
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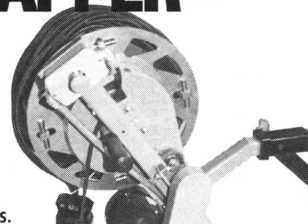


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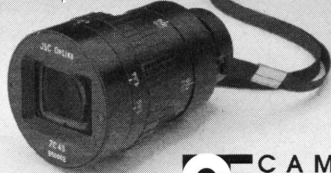


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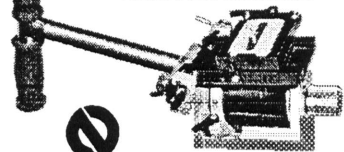


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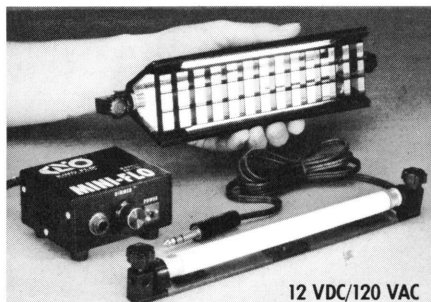
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me above are correct and complete.

— Stephen Pizzello, Executive Editor

From the Clubhouse

The ASC's newest active members
are Paul Ryan, Geoffrey Erb, and Andrzej
Bartkowiak.

Ryan changed from the engi-
neering field to photography after
graduating from Rennselaer Polytech and
became an internationally-known skiing
still photographer, during which time he
also taught at the Ansel Adams Sem-
inars. After attending the graduate cin-
ema department at San Francisco State
College, he began making films, starting
out with sports subjects — two of his
documentaries on the world of alpine ski
competition won CINE Golden Eagles —
and moving to other subjects such as
Salvador Dali and San Francisco's Hell's
Angels. His first work on a feature film
came when George Lucas asked him to
do the still photography on *American
Graffiti*. After moving to Los Angeles, he
did the second-unit photography on *Days
of Heaven* and experimental filming and
research on director Terrence Malick's
Creation project. His credits as director
of photography include the Disney 70mm
3-D Epcot film *Magic Journey* and the
features *Alan and Naomi*, *Hot Dog*, *A
Matter of Degrees*, *Where the Rivers
Flow North*, and *Other Voices, Other
Rooms*. As a commercial cinematogra-
pher he shot several of the Paul Masson
Wine commercials starring Orson
Welles. He also did second-unit photog-
raphy for fishing and river sequences in
A River Runs Through It.

After 11 years as a first assis-
tant in New York, Geoffrey Erb became
director of photography on *The Equalizer*,
where he stayed for four years, picking
up an Emmy nomination along the way.
More recently he shot the series *Central
Park West* (for which he also shot the
pilot), *The Cosby Mysteries* and *Under
Cover*. Other credits include the pilots
The Gray Area, *Deadline*, *Law and Order*,
and *The Keys*, the *Kojak* mini-series, the
feature *New Eden*, and director Alan
Metzger's movies of the week *Room-
mates*, *Exclusive*, *The Black Widow Mur-*

ders, *The Jury of One*, and *Eye for an Eye*.

Andrzej Bartkowiak's feature
credits include *Jade*, *Speed*, *Falling
Down*, *Twins*, and *Prizzi's Honor*, as well
as an impressive body of work with direc-
tor Sidney Lumet, including *Guilty as Sin*,
Q&A, *Family Business*, *Power*, *The Morn-
ing After*, *Garbo Talks*, *Daniel*, *Terms of
Endearment*, *Deathtrap*, *The Verdict*, and
Prince of the City.



Retired associate member Don
Kloepfel, a motion picture design engi-
neer and president of Don V. Kloepfel and
Associates, died on August 31. Kloepfel
worked as a sound engineer at various
studios and Technicolor in the Forties
and Fifties, and from 1955 to 1976 was
director of projection services at Deluxe
General Inc. in New York, Chicago and
Hollywood. He formed his own company
in 1976, and over his career served as
consultant to such companies as Chicago's
Museum of Science and Industry, the
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Arriflex, Moviemax and Panavision dem-
onstrated their newest creations at a re-
cent meeting at the ASC Clubhouse to
kick off the '95-'96 season. Bill Russell of
Arriflex demonstrated the new Arri 435
for M.O.S. shooting, Denny Clairmont
showed off the new Moviemax SL
(SuperLight) sound camera, and optical
designer Iain Neil introduced the
Panavision/Frazier Lens System, which
offers depth of field from 1:1 magnifica-
tion to infinity. The introduction was fol-
lowed by a demonstration by its inventor,
wildlife cameraman Jim Frazier.

The ASC's new sound system
and anamorphic projection lenses, re-
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company in thanks. Phil Radin accepted
on behalf of Panavision president John
Farrand.



Telluride: A Mountainside Cinema Celebration

by Steven Poster, ASC

The 22nd Telluride Film Festival has just ended and I am on my way home thinking about the 20 movies I've watched over the last three and a half days. I'm convinced this is, indeed, the "Ultimate Mountain Celebration of Cinema": no competitions, no dressing up, no business done, no cellular phones, and not many cars (you can walk to all of the theaters). There are just a lot of people who ascend to this beautiful mountaintop to spend their Labor Day weekend watching some of the year's best new movies, as well as a brilliant selection of tributes to the golden eras of cinema history.

Once again I was thrilled by new works from the masters. John Schlesinger's *Cold Comfort Farm*, a British satire set in the Thirties and produced for the BBC, is a delightful departure for the director from his usual sensitive and dark subject material. Bertrand Tavernier, a frequent participant at Telluride, introduced not only his new movie *Fresh Bait* — based on the true story of three young French thieves who commit murder in their quest for wealth — but *100 Years Ago: Lumière*, an important look at the origins of storytelling on film.

I was moved by a restoration of *The River*, a rare silent film from the romantic director Frank Borzage. Though it doesn't exist in its entirety, the director's brilliance shines through. I laughed along with Gus Van Sant's *To Die For*, which sports a witty and entertaining script by Buck Henry and a complete understanding of the lead character by Nicole Kidman.

I was amazed at how a movie can be made for \$27,000 — which is the case with Tim McCann's *Desolation Angels* — and still tell a complex and gripping story of Generation X kids in New York's outer boroughs trying to find their way in the world. This movie was the

recipient of the first Merchant Ivory Foundation gift, a sizable amount of Kodak film stock to be applied to the director's next effort. The award is an important acknowledgment of the relevance of the independent scene in America today. The talent emerging from the low-budget realm is supplying us with the great filmmakers of tomorrow; the opportunity to support and cheer on filmmakers who have beaten the odds to make a good movie, and to give them a sophisticated audience that appreciates the qualities found in their work, is very rewarding indeed.

A screening of an Ida Lupino film called *The Hard Way* was followed by a question and answer session moderated by Tavernier and featuring the film's venerable director, Vincent Sherman. The session was made even more enjoyable by the obvious respect and admiration the two have for each other. Sherman, who is turning 90 next year, was one of the studio system's success stories. He made many movies in Hollywood during the Forties and Fifties and retired in his 70s.

The Hard Way, photographed by James Wong Howe, ASC, is a story of rising out of a very tough low-income existence in a steel mill town. The movie opened to show this difficult life with striking images that appeared to be documentary footage.

Sherman explained that Howe was responsible for matching the footage the studio provided for the opening, taken from a piece by the great documentary filmmaker Pare Lorentz. Howe came up with the idea of drifting smoke through every scene of the opening that they shot, which would help marry the two styles and looks of the very different material, a seemingly simple idea that points out how the simple solutions are often the most elegant.

Another festival highlight for me was the screening of *Survivors of the Shoah* and the following Q&A session. This documentary, directed by Allan Holzman, tells of the work of the Survivors of the Shoah Visual History Foundation, inspired by Steven Spielberg, to record the stories of every living survivor of the Holocaust (many now in their 70s and 80s) willing to be put on tape.

Holzman's work uses carefully-chosen historical footage to show Jewish life in Europe before and during the Holocaust in counterpoint to several interviews of the actual survivors. The interviews are recorded without editorial comment or manipulation, and the recordings will be preserved digitally and catalogued.

The poignant and often emotional post-screening discussion included not only the filmmaker and producers but a survivor, Helmuth Spruczer, who appears in the documentary. He told of screening the movie the day before for high school students, who wondered how people could do this to each other. That is the ultimate value of this piece: the education of children to understand tolerance.

(This effort is now operating worldwide and recording dozens of visual histories per week. If you have any interest in volunteering to help with this ongoing project, you can contact the Survivors of the Shoah Visual History Foundation at P.O. Box 3168, Los Angeles, CA 90078-3168.)

This year the Film Festival, which champions not only mainstream movies but independent filmmakers and the work of film preservationists, is losing one of its screening venues, the gym of the local high school, which is being torn down. The estimated cost of creating a new theater in the new school is a quarter of a million dollars. Thanks to a long-time Festival supporter, Max Palevesky, a generous challenge grant has been made. In his honor, the new theater will be named "The Max". If you are so inclined, you can mail your tax-deductible donations to: Telluride Film Festival, 53 S. Main Street, Suite 212, Hanover, NH 03755.

Perhaps next Labor Day I'll see you on the streets of Telluride or in the new Max theater, seeing the year's great new movies or viewing some of cinema's great heritage at the 23rd Telluride Film Festival.

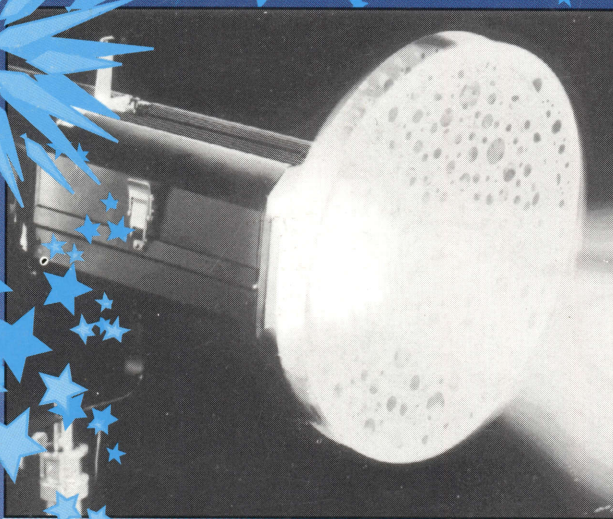




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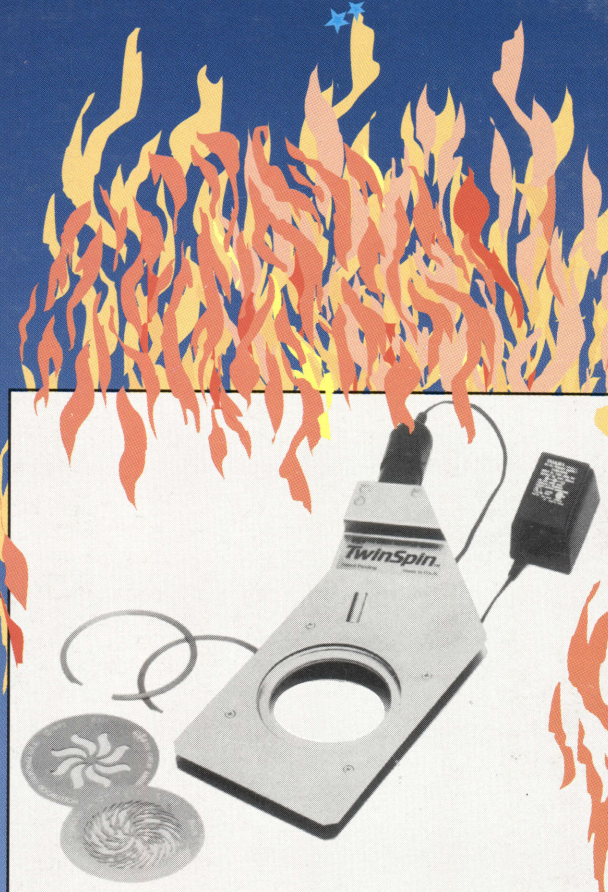


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